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T A B L E S

O F

Latitude and Departure,

W I T H

An ESSAY on their *Origin and Use*;

PARTICULARLY

As they are suited to the Purposes of

LAND SURVEYING:

A L S O,

A N A P P E N D I X,

C O N T A I N I N G

An ILLUSTRATION of all the
METHODS OF CALCULATION

HITHERTO PRACTISED,

A N D A S P E C I M E N O F
E I G H T N E W M E T H O D S,

NEVER BEFORE PUBLISHED.

By THOMAS HARDING.

D U B L I N :

PRINTED FOR THE AUTHOR, AND SOLD BY HIM

AT No. 27, MEATH-STREET.

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1788

T. A. B. L. E. S.

Lawrence and Lawrence

MASSACHUSETTS

As the law is made to the people of

LAND SURVEYING

A. N. A. P. E. N. D. I. X.



METHOD

LIGHT NEW METHOD

BY THOMAS WARDEN



INTRODUCTION.

AS I have, in the following little Treatise, laboured to serve the Community; in my Opinion, I have much to hope from its Candour, but nothing to fear from its general Censure.

My Design is to rescue Calculation from the Intricacy and Obscurity in which it was too long involved; and, an impartial Examination of the Notes and Remarks on the various Methods hitherto published, especially the last Sheet on the Subject, will shew how far my Endeavours have been successful.

The practical Surveyor, who would wish to be decided by Arithmetical Calculation, WHICH CANNOT ERR, will find this small Volume his best Companion, and his Employers must, of Course, experience it their best Friend.

Meath-Street, Octob. 12, 1788.

THOMAS HARDING.

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As I have, in the following little Treatise, laboured to serve the Community; in my Opinion, I have much to hope from its Circulation, but nothing to fear from its general Censure.

My Design is to reserve Calculation from the Industry and Assiduity in which it was too long involved; and, in particular, the Examination of the Tables and Rules on the common Method, but to publish, especially in the last Sheet on the subject, what has been for my predecessors have been successful.

The principal Surveyor, who would wish to be decided by Mathematical Calculation, which CANNOT ERR, will find this small Volume his best Companion, and his Employers must of Course, experience it their best Friend.

Meals Street, ODD. 1738.

THOMAS HARDING.

OBSERVATION.

UPON a close Inspection of ROBERTSON's Tables, whereof the following is a Copy, many considerable Errors were discovered, which, for a long Time, made me hesitate about their Publication; but having at length happily thought of an Expedient to remedy every Defect, by the Addition of an easy *auxiliary Table*, I may now venture to offer them to the PRACTICAL SURVEYOR in as perfect a State as if no such Errors had ever existed. This Table, which is comprised in one Page, is prefixed to the general Tables, and its Use is as follows: First enter the auxiliary Table with the Bearing and Distance, and if BOTH be found there, take out the Latitude and Departure next adjoining; If BOTH be not found there, make use of the general Tables, as hereafter directed, for there is no Error but what the auxiliary Table corrects.

N. B. If the Bearing be under 45° , take out the Latitude and Departure as they occur; if over 45° reverse them.

VARIATION OF THE NEEDLE.

THE Variation of the Needle this Year, at Dublin (Sept. 1788) is $26^{\circ}.50^1$ Westerly, having increased, uniformly, since the Year 1657 at the Rate of 12 Minutes 20 Seconds, nearly, a Year.

PROBLEM.

Having the Notes of a Survey, recently taken, to find what the Bearing of any stationary Line was, any Number of Years past, since the Year 1657: Multiply the Years elapsed by 12 Minutes 20 Seconds, and add the Product to the present Bearing, the Sum will be the Bearing required, and vice versa.

This Problem will be found extremely useful in tracing the DOWN or other SURVEYS, or in RECOVERING LOST OR DEFACED MEASUREMENTS.

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UPON a table subject of the following is a Copy, many considerable Errors were discovered, which for a long time made me hesitate about their publication; but having at length happily thought of an Expedient to remedy every defect by the Addition of an auxiliary Table, I may now venture to offer them to the FRAGMENTARY SURVEYOR in as perfect a state as I could have had ever exist. This Table, which is appended to each Page, is prefixed to the general Tables, and the Use is as follows: First enter the auxiliary Table with the Bearing and Distance, and it will be found there, either the Latitude and Longitude next adjoining; if not be not found there, make use of the general Tables, as before directed, for there is no Error but what the auxiliary Table corrects. N.B. If the Bearing be under 45°, take out the Latitude and Longitude as they occur; if over 45° reverse them.

VARIATION of the NEEDLE.

THE Variation of the Needle this Year, at Dublin (Sept. 1788) is 26° 30' West, having increased, uniformly, since the Year 1657 at the Rate of 12 Minutes 20 Seconds yearly, a Year.

P R O B L E M

Having the Names of a Series, recently taken, to find what the Bearing of any Particular Line was, any Number of Years past, since the Year 1657: Multiply the Years elapsed by 12 Minutes 20 Seconds, and add the Product to the present Bearing, the Sum will be the Bearing required, and vice versa.

This Problem will be found extremely useful in tracing the Down or other surveys, or in recovering lost or detached Measurements.

T O

WILLIAM DEANE, Esq;

THE FOLLOWING

E S S A Y,

&c. &c.

IS HUMBL Y INSCRIBED

BY THE

EDITOR.

TO

WILLIAM DEANE, Esq.

THE FOLLOWING

B. 2. 2. Y.



SC. SC.

IS HUMBLY INSCRIBED

BY THE

EDITOR.



E S S A Y
O N T H E
O R I G I N and U S E
O F
T A B L E S
O F



Latitude and Departure.

SINCE we are taught to entertain so high a Notion of the Value and Importance of Tables of LATITUDE and DEPARTURE, and to esteem the Persons who undertake to publish them, as Men of extraordinary Learning and uncommon Abilities, let us examine how far they are entitled to such exalted Distinctions. We understand that those Tables comprehend the Resolution of Right-angled Triangles in absolute Numbers, and that the Title

has been bestowed upon them by Navigators, because they shew (by Inspection) the Sine of the Angle of the Course, and its Complement, one of which determines the LATITUDE, and the other the DEPARTURE. We also perceive that we are indebted to the Industry of *Regiomontanus* alone for the Expedient: That able Mathematician, so early as the Year 1466, knowing that the Sides of similar Triangles are proportional, and that in every Right-angled Triangle (the Hypothenuse being made Radius) the Sides are the Sines of their opposite Angles, wisely concluded, That, if he supposed the Hypothenuse to be 1, and could determine the proportional Length of the other two Sides, the Solution of all other similar Triangles would follow of Course; for as the Radius of the first would be to its Sides severally, so would the Radius of the second be to its Sides: Therefore as Unity would always be the first Number in the Stating, the Product of each Side of the first into the Radius of the second would answer the Purpose. This being premised, he entered upon the arduous Task of finding the Sine corresponding to every Degree and Minute of the Quadrant; and having disposed them triangularly, or so as to exhibit

bit the Sine of an Angle and its Complement at once to view, he called the Canon a Table of NATURAL SINES. By these Tables all our modern ones are constructed, thus; In a Right-angled Triangle, there is given the Hypothenuſe = 2, one of its Angles = 40 Degrees, and confequently the other = 50°, to find the Sides. The Natural Sine of 40° is ,64278, and of 50° is ,76604, which being doubled make 1,28556 and 1,53208, or (the laſt three Figures being cut off as unneceſſary) are 1,29 and 1,53, the Sides required. Theſe ſtand in a Line with 2, under 40 Degrees in the Table of Latitude and Departure. But to make this a little more intelligible. Suppoſe the Courſe or Bearing be S. W. 37° 15', and the Diſtance 2 Miles or 2 Chains, to find the Latitude and Departure (or rather the Difference of Latitudes and Departure). The Natural Sine of 37° 15' is ,6053, and of its Complement, ,7960, theſe being multiplied by 2 produce 1,21 for the Difference of Latitude, or Southings, and 1,59 for the Departure or Weſtings, which ſtand in a Line with 2, under 37½ Degrees, and are diſtinguiſhed by the Terms Lat. and Dep. or the Letters N.S. and E. W. at the Top, in the aforeſaid Tables. So that all the Art of making

them consists in multiplying the several Natural Sines and Co-Sines of every Degree and Quarter up to 45 by 2, 3, 4, 5, &c. successively, and placing their Products regularly under one another in proper Columns; or else, by adding the common Natural Sine and Co-Sine as often to themselves, as there are Units, less 1, in the last Term of the Distance; *the Letters Lat. or N. S. being placed over the Co-Sine Products, and Dep. or E. W. over the Sine.* Hence the Natural Co-Sine is always the Latitude, and the Natural Sine the Departure, corresponding to the first Term of the Distance under every Degree. Thus may a School-Boy, who has advanced no farther than Multiplication, or even Addition, compose Tables of Latitude and Departure, not only to every Quarter of a Degree, as is customary, but also to every Minute, were it necessary. So that the Compilers of such Tables can lay Claim to no greater Merit than that of being, for the most Part, INCORRECT COPIERS.

But it is Matter of Surprize that the Origin of those Tables are at present so little understood, seeing they have been made so much the more publick and familiar

liar by their happy Assistance in the Art of Surveying. Whether this proceeds from the Novelty of their Application, by which they seem to be another Species, and for the Understanding of which so little Share of Instruction is necessary, that it can be acquired by Precedent alone; or from the indefatigable Endeavours of those TABLE-MONGERS to keep People in the Dark, by pretending they are the Productions of their own Brain, and have been accomplished by Dint of close Study and Application for many Years, is difficult to determine: But since it is the Case, we think it incumbent on us, to undeceive those who are so egregiously mistaken or imposed upon, especially such Gentlemen of Letters, as, through an Attention to more important Matters, may not have had an Opportunity of making this Branch of Science any Part of their Study, *as they are liable to be taken in to foster and encourage such Productions, through a Motive of Compassion for the laborious Undertaker, and a tender Regard for the slightest Improvement,* IN THE FINE ARTS and MECHANICKS.

Ease and Simplicity should be the prevailing Objects of every Design. *Gibson,* to whose Knowledge this Kingdom, in particular,

particular, is greatly indebted, was entirely of this Way of thinking, when he made Choice of the simple Natural Sines, in Preference to any other, with which he composed a very concise Table of Multipliers, suited to the Usage of the common Circumforentor. *Noble*, who has availed himself much of the Lights thrown on the the Subject by his ingenious Predecessor, (to avoid the Trouble of continually multiplying) substituted the Numbers themselves, to be obtained, partly by Inspection; but was so much aware of Prolixity, that he carried them no farther than 25 Four-Pole Chains, by which, and the singular Disposition of them, he has judiciously circumscribed his Tables within very narrow Bounds.

If Perspicuity be not principally considered, especially in the Art of Surveying, it will dwindle once more into its original Perplexity. Voluminous Tables, whether made to suit complex Instruments, or otherwise carried out to an unnecessary Length, can never answer any advantageous Purpose. The same Law that prevails in Mechanicks holds good in this, viz. That "What is gained in Power" is lost in Time." That is, if we gain a mechanical Advantage by taking the
Numbers



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Vanity of attempting to chain even to Half a Link. The Improbability of measuring in a Right Line, if there was no other Obstacle, would effectually prevent it; which Consideration has, perhaps, given Rise to a generally received Maxim, among Surveyors, viz. That one and the same Person would find it very difficult to measure a Station of any considerable Length twice over alike. But there is no Occasion for such Nicety, were it even possible; since (as has been before observed) the Surveyor can, with the greatest Propriety, limit his Stations as he pleases: He can readily terminate his Distance to a single Link, if he finds it inconvenient, at any Time to do it at 10. His Off-sets will not be, by this Means, in the least affected, as we grant they may, in the former Case; though, upon the Whole, such an Alteration in the Off-sets would be no Detriment, they being, when properly taken, the most correct Part of a Survey. But if Nothing can prevent the eager Disposition of those Scribblers to appear in Print, (however detrimental it may be to the Community, by creating Doubts in the Minds of landed Proprietors, and others, about the Certainty of the Methods already practised, and endless Disputes among Surveyors themselves)

selves,) let them fairly transcribe the above-mentioned Tables, or put them to the Press as they are; but, at the same Time, they should candidly acknowledge where they found them, and not strive to arrogate a Merit they have not the least Pretensions to: When they do this, they may be allowed the Liberty of adding one Decimal more, instead of the Increase of the second by 1, if the third is equal to or above 5, provided they take Care to make the necessary Alteration in the second Place; though, we are certain, it will be of no more Service to us, than the indulging so idle a Curiosity will be to themselves.

Were we to expatiate upon the various Instruments in Use among Surveyors, we might draw more forcible Inferences from it in Favour of our Hypothesis than all that has been advanced. But we shall confine ourselves to a few Observations. Whatever may be said of other Instruments, there is no denying the superlative Use of the Circumforentor, in Case it be well made, and the free Use of the Needle be not retarded by any hidden Attraction; but where there is any such Obstruction, we subscribe to the Preference of *Hood's* Compass Theodolite. This Instrument has two capital Advantages, and two opposite Disadvantages.

vantages. The first consists in its Use both as a Theodolite and Cricumforentor; the second in the Length of the Needle and the Friction of its Parts. However, one of these latter seems to be partly provided against, by the Needle's being confined to a certain Space, which prevents its Vibrations, and helps it to settle sooner than it otherwise would do; and no Doubt the second may be assisted very much, by the Care and Management of a judicious Operator. Should this Instrument ever come into Vogue, since it is contrived to give the 12th Part of a Degree, or every 5 Minutes, how shall we remedy the Defect of the Tables, in that Case? Must they be increased to three Times their ordinary Bulk, to answer this Purpose? If we consider the present Size, we shall be startled at the Supposition. *But if no other Method for finding the Latitude and Departure can be obtained*, we must have Recourse to the original Tables of Natural Sines, which leave us just where we were upwards of 300 Years ago.

APPENDIX



A P P E N D I X



FOREGOING ESSAY:

S H E W I N G

The more particular Use of TABLES of LATITUDE and DEPARTURE, especially the following, which (agreeable to fundry Methods of Calculation) are, of all others, best suited to the Purpose.

FIRST it may be proper to observe, that the Editor of those Tables has pursued a Plan somewhat different from the Original; viz.

- I. By allotting two Pages to every Degree, and its Quarters ;
- II. By continuing the Distance only to 100 Chains.

The Advantage of this Disposition results from two important Considerations ; viz.

B

That

That they are, by this Means, rendered more plain and intelligible, and the Management of them more certain : For the Confusion which a Multiplicity of Figures, arranged under different Degrees, in the same Page, must necessarily create, is, by this Means, avoided; the Eye and Attention being entirely confined, to the single Object under Consideration.

As we have set out, by giving an impartial Account of the Construction of those Tables, &c. so we shall as impartially proceed, by shewing their Application to the various Methods made Use of, for determining the Area of Right-lin'd Figures arithmetically, and leave the Reader to judge of the Preference that ought to be given to one more than another : This we shall do by a Calculation of the Notes of a Survey (taken in *November 1770*) agreeable to each of the said Methods.

In the Use of those Tables a few Observations only are necessary.

I. If a Station consists of any Number of even four-pole Chains,

The Latitude and Departure will be found (at Sight) under the Bearing, if less than 45 Degrees, or over it, if more, in a Line with the Distance.

II. If

II. If a Station consists of any Number of Chains and Tenths of a Chain, under 10 four-pole Chains,

The Latitude and Departure will be found (as above) under or over the Bearing, the Decimal Point, or Separatrix, being removed one Figure to the Left, which leaves a Figure to the Right to spare.

III. If the Distance be any Number of Chains and odd Links,

The Latitude and Departure must be taken out at two Operations, 1st the Latitude and Departure corresponding to the Chains, and then the Links; or, according to the second Observation, first the Chains and Tenths (if under ten Chains) and then the odd Link or Links, both which must be added together; where it is to be observed that there is, in both Cases, one or more Figures to spare.

To save the repeated Trouble of an Addition, (in this Respect) a judicious Surveyor will always limit his Stations (if possible) to whole Chains or Chains and Tenths (which was insisted on in the preceding Essay) and this he can conveniently do at every Station, save the last, as the following Field-Notes testify.---*See Page 20.*

To illustrate the foregoing Observations,

I. Suppose a Course or Bearing to be $35\frac{1}{4}$ Degrees South East (which will be expressed thus S. E. $35\frac{1}{4}$) and a Distance of 79 four-pole Chains.

Under $35 (\frac{1}{4})$ and opposite 79 we find 64,52 Lat. and 45,59 Dep. which signify, that the End of that Station differs in Latitude from the Beginning 64,52 Chains, and in Departure 45,59 Chains; the former being counted on a Meridian and the latter on a Parallel, that is, such a Station and Bearing takes us by so much nearer to the South and East.

Again, let the Bearing be $54\frac{3}{4}$ Degrees and Distance as before, then over said Degree we find the same Numbers, but that which was the Latitude then is the Departure now, because $54\frac{3}{4}$ is the Compliment of $35\frac{1}{4}$ Degrees to 90; viz.

C. L.

Lat. 45,59

Dep. 64,52

II. Suppose the same Bearings, but the Distance 7 Chains 90 Links.

Here we find the same Numbers, but the Decimal Point must be removed one Figure to the Left.

Thus

(19)

Thus, under $35\frac{1}{4}$ and in a Line with 79 or 7,9
are

C. L.
Lat. 6,45
Dep. 4,56

the 5 in the Departure being increased by 1, be-
cause the 9 is rejected; but over $54\frac{3}{4}$ we get

C. L.
Lat. 4,56
Dep. 6,45

III. Let the Bearing be as before $35\frac{1}{4}$, but the
Distance 7 Chains 79 Links.

	<i>C. L.</i>	<i>C. L.</i>
Opposite 7,70	Lat. 6,29	Dep. 4,43
9	7 Links	5
	6,36	4,49

Or,

<i>C. L.</i>		
Opposite 7,00	Lat. 5,72	Dep. 4,03
,79	,64 Links	,46
The same as before	6,36	4,49

These Things being premised, we shall, with-
out any further Preamble, introduce the afore-
said Field-Notes.

NOTES

NOTES OF A SURVEY,



Taken in November 1770.

(OFFSETS omitted here.)

St.	Bearing.	Distance 4-pole Ch.	N.	S.	E.	W.
1	S. E. 30 $\frac{1}{2}$	3,20		2,76	1,62	
2	S. E. 15 $\frac{1}{4}$	4,60		4,44	1,20	
3	S. W. 70 $\frac{1}{2}$	2,30		0,77		2,16
4	S. E. 5 $\frac{3}{4}$	4,40		4,38	0,44	
5	N. W. 64 $\frac{3}{4}$	6,10	2,60			5,52
6	N. E. 79	1,90	0,36		1,86	
7	N. W. 62 $\frac{1}{4}$	7,20	3,35			6,38
8	N. E. 31	3,90	3,34		2,00	
9	N. W. 32 $\frac{1}{4}$	2,50	2,11			1,34
10	S. E. 83 $\frac{3}{4}$	3,60		0,40	3,58	
11	S. E. 25	2,80		2,53	1,20	
12	N. E. 29	2,00	1,75		0,96	
13	N. E. 55 $\frac{3}{4}$	3,11	1,77		2,54	
Proof			15,28	15,28	15,40	15,40

The first Column shews the Number of Stations; the second, the Bearings (taken by a Circumforentor) in Degrees and Quarters; the third, the Distance in four-pole Chains and Links (Plantation

tation Measure.) The last four Columns exhibit the Difference of Latitude and Departure of each Station, taken at Sight, from the Tables, as already directed.

FOR I N S T A N C E.

Station first is S. E. $30\frac{1}{2}$ Degrees and Distance 3,20 Chains; under $30\frac{1}{2}$, in said Tables, and opposite 32 we find 2,76 and 1,62 : These Numbers are placed opposite Station 1st, under S. and E. which signify Southing and Easting, or that the End of that Station is 2,76 nearer the South, and 1,62 Chains nearer the East than the Beginning. The End of the second is found (in like Manner) to be 4,44 Chains, and 1,20 Chains nearer the same Points than the End of the first. The End of the third 77 Links and 2,16 Chains nearer the South and West, than the End of the second, &c. The 5th being North and West, its Latitude and Departure must be placed under N. and W. and so of all the rest. These Columns being filled up, if the Sum of the Northings are found equal to the Sum of the Southings, and the Sum of the Eastings to the Sum of the Westings, the Field-Work is rightly taken, and we have (on this Occasion) no further Use of the Tables, the Work being prepared for one or other of the ensuing Methods of Calculation.

I. Mr.

I. Mr. B U R G H's Method.

O B S E R V A T I O N.

By this Method the Area may be obtained four Ways, viz. from a Parallel passing thro' either the extreme Points of the Survey, North or South; or a Meridian passing thro' the extreme Points, East or West. If the Calculation be made from a Parallel passing thro' the extreme South Point, and the Land, to be surveyed, kept on the Right Hand (as is customary) then the East Area will be the largest; if from a Parallel passing thro' the greatest extreme Point North, the West Area will be the largest: The contrary happens if the Land to be surveyed be kept on the Left Hand. Agreeable to his Example we have kept it on the Right Hand, and calculated from a Parallel passing thro' the greatest extreme South Point.---See the *Work and the Remarks thereon in the first folding Leaf.*

II. Mr. GIBSON's Methods.

O B S E R V A T I O N S.

The first and second of his Methods differ from Mr. *Burgh's* in two Particulars; one is, that he calculates by half Departure instead of whole; the other, that (to avoid the Trouble of finding the

the greatest extreme Points East and West) he makes Use of the Sum of the whole Eastings or Westings, instead of the greatest Extreme, which in all Cases throws the first Meridian beyond the Limits of the Land, by a Distance equal to the Departure of the first Station from the opposite Extreme. His first Method supposes the Meridian to lie on the West Side of the Land, and his second on the East Side; in which Cases the South and North Areas will be alternately the largest. But

His third and fourth METHODS

Are as much superior to, as they are different from the first and second: In the Use of those he always supposes the first Meridian to pass thro' the Land or Map, the Result of which is, that the several Meridian Distances East of the first Meridian (as in the former Case) and West of it (as in the latter) are lessened by a Number equal to the Distance between the two Meridians; and consequently that the Products which constitute the several Areas are by so much diminished. A View of his first and third Methods, with the Remarks thereon in the second folding Leaf, will clearly demonstrate this. The fourth Method differing nothing from the third, save in the Manner of placing the Products is (as well as the second) for Brevity Sake, omitted.

(24)

III. Mr. NOBLE'S Method.

OBSERVATION.

This Method differs in many Respects from the preceding. He supposes the Land to be calculated, or its Map, inclosed by, or inscribed in, a Parallelogram formed by two Meridians and two Parallels, the former passing through the greatest extreme Points of the Survey East and West, and the latter thro' the greatest extreme Points North and South. In which Case, the first Thing to be done is to calculate the Area of the circumscribing Parallelogram, and next the Area of the angular Spaces contained between it and the inclosed Survey, the Difference of which is the Area of Map. This he effects by first finding the 4 greatest Extremes, and then observing the Number of Stations which run counter or contrary to the natural Order or Succession of the 4 Quarters of the Compass; such Stations he calls indirect or retrograde, and defines them thus: " If in
" proceeding Southerly from the greatest extreme
" Point North, there happens a Station to turn
" Northerly, or in proceeding Northerly from
" the greatest extreme Point South, there hap-
" pens a Station to turn Southerly; moreover,
" if in proceeding Westerly from the greatest
" extreme Point East, there happens a Station to
" turn Easterly, or in proceeding Easterly from
" the greatest extreme Point West, there happens
" a Station

" a Station to turn Westerly, such Stations are
 " indirect, &c." These indirect or retrograde
 Stations being observed, after the aforesaid four
 greatest Extremes are found (which are easily
 discovered, either from the Field-Notes, or from
 a Protraction of them) the Sum of their respective
 Northings and Southings taken from the Sum of
 the Northings or Southings of the whole, and the
 Sum of their Eastings and Westings taken from
 the Sum of the Eastings or Westings of the whole
 Survey, leaves the two Sides of the circumscribing
 Parallelogram, the Product of which is its Area.
 He next finds the Latitude of each Station from
 the extreme Points North and South, " by add-
 " ing the Northings and subtracting the South-
 " ings in proceeding to the extreme Point West,
 " or adding the Southings, and subtracting the
 " Northings in proceeding to the extreme Point
 " East," which two Columns being completed,
 every two adjacent Latitudes are added together,
 and their Sum multiplied by the particular East-
 ing or Westing opposite to each, the Sums of which
 Products, less by the Sum of the Products of all
 those which have indirect Departure either East
 or West, are twice the Sum of the aforesaid an-
 gular Spaces; which being divided by two, and
 subtracted from the Area of the Parallelogram
 first found, leaves the Area of the Survey. By
 this Method the Area may be found two Ways.
 ---See the *Work and Remarks in the third folding
 Leaf.*

C A L C U -

**CALCULATION of the forego-
ing NOTES, by Mr. BURGH's
Method.**

	N.	S.	E.	W.	C.	L.	T.	T. E.	T. W.
1		2,76	1,62			9,59	21,94	35,5428	
2		4,44	1,20		4,44—	5,15	14,74	17,6880	
3		0,77		2,16	5,21—	4,38	9,53		20,5848
4		4,38	0,44		9,59—	0,00	4,38	1,9272	
5	2,60			5,52	6,99—	2,60	2,60		14,3520
6	0,36		1,86		6,63—	2,96	5,56	10,3416	
7	3,35			6,38	3,28—	6,31	9,27		59,1426
8	3,34		2,00		0,06+	9,65	15,96	31,9200	
9	2,11			1,34	2,17+	11,76	21,41		28,6894
10		0,40	3,58		1,77+	11,36	23,12	32,7696	
11		2,53	1,20		0,76—	8,83	20,19	24,2280	
12	1,75		0,96		0,99+	10,58	19,41	18,6336	
13	1,77		2,54		2,76+	12,35	22,93	58,2422	

281,2930 | 122,7688
122,7688

2,0) 158,5242

Area 7,92621

N. B. The Criterion Column C is retained here only for the Sake of Illustration, it being seldom used by Practitioners, as any Number, not less than 9,59, in the Column C, would answer as well.

Remarks.

THE Criterion Column C is that by which Mr. BURGH arrives at the Knowledge of the greatest Extremes North and South. This he does by adding to the Latitude of the second Station, the Latitude of all the rest successively, agreeable to the Nature of positive and negative Signs, the Sign + being affixed to the Northings, and — to the Southings; this being done, the greatest Quantity with a negative Sign (being the absolute Northing of the first Station, or its greatest Parallel Distance from the extreme Point South) is placed under L in a Line with Station 1, which in this Example is 9,59; to and from this Quantity is again added and subtracted the Northing and Southing of every succeeding Station (without any Regard to the Nature of the Signs + and —) the Sums and Remainders of which are the absolute Northings of every following adjacent Station; thus from 9,59 is taken 4,44, from the Remainder 0,77, from this Remainder 4,38, &c. which being so completed, every two adjacent Latitudes are added together successively, beginning with the first and last; viz. in this Example 9,59 and 12,35, next 9,59 and 5,15, and so on, which completes the Column T. The several Quantities in this Column are next multiplied by the particular Easting and Westing opposite thereto, and the Products placed in the Columns T. E. and T. W. (signifying Total East and Total West.) Thus 21,94 is multiplied by 1,62 = 35,5428 to be placed under T. E. because 1,62 is Easting, 14,74 by 1,20, 9,53 by 0,77, &c. The Difference between these Columns is twice the Area in Square four-pole Chains, which being divided by 2 and 10, quotes the Area in Acres and Decimals.

So the Area in this Example is 7,92621 Acres, or 7 Acres, 3 Roods, and 28 Perches.

Mr. GIBSON's First
Method, applied to the
Calculation of the fore-
going NOTES.

Stat.	Lat. & ½ Dep.	Mer. Dist.	N. Area.	S. Area.
		15,40		
1+	S. 2,76 E. 0,81	16,21 17,02		44,7396
2+	S. 4,44 E. 0,60	17,62 18,22		78,2328
3-	S. 0,77 W. 1,08	17,14 16,06		13,1978
4+	S. 4,38 E. 0,22	16,28 16,50		71,3064
5-	N. 2,60 W. 2,76	13,74 10,98	35,7240	
6+	N. 0,36 E. 0,93	11,91 12,84	4,2876	
7-	N. 3,35 W. 3,19	9,65 6,46	32,3275	
8+	N. 3,34 E. 1,00	7,46 8,46	24,9164	
9-	N. 2,11 W. 0,67	7,79 7,12	16,4369	
10+	S. 0,40 E. 1,79	8,91 10,70		3,5640
11+	S. 2,53 E. 0,60	11,30 11,90		28,5890
12+	N. 1,75 E. 0,48	12,38 12,86	21,6650	
13+	N. 1,77 E. 1,27	14,13 15,40	25,0101	

160,3675 | 239,6296
160,3675

10) 79,2621

N. B. The Stations and Bearings are
omitted here, which see, Page

Remarks.

THE Bearings and Distances being the
same as before, are here omitted ; but
the Latitude and Departure are placed in
the same Column under Lat. & ½ Dep.
the Latitude of each Station over the half
Departure of the same Station. The Me-
ridian Distance 15,40 (equal to the Sum
of the whole Eastings or Westings) is
placed at the Top, under Mer. Dist. and
(because the first Meridian is supposed to
pass by the West Side of the Land or Map)
the Eastings must be added to, and the
Westings subtracted from that Number,
for which Purpose they are marked with
the Signs + and -. Thus the Depart-
ure of the first Station being East 0,81, is
added to 15,40 = 16,21, and then to
16,21 = 17,02, the second being Easting
is added in like Manner, but the third being
Westing is subtracted, and so on. When
this Column is completed, the Number
joining every Latitude must be multiplied
by said Latitude ; viz. 16,21 by 2,76,
17,62 by 4,44, &c. and the several Pro-
ducts placed in the adjacent Columns N.
Area and S. Area, according as the Lati-
tude is North or South. The Difference
of the Sums of which 79,2621 are Square
four-pole Chains, which divided by 10 is
7,92621 (as before) the Area required.

His Third
d

St.	Mer Dist.	
1	0,81 E 1,62 E	
2	2,22 E 2,82 E	
3	1,74 E 0,66 F	
4	0,88 E 1,10 E	
5	1,66 W 4,42 W	
6	3,49 W 2,56 W	
7	5,75 W 8,94 W	
8	7,94 W 6,94 W	
9	7,61 W 8,28 W	
10	6,49 W 4,70 W	
11	4,10 W 3,50 W	
12	3,02 W 2,54 W	
13	1,27 W 0,00 W	

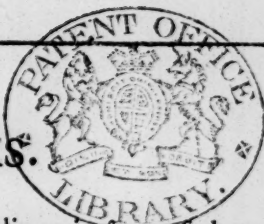
N. B. The
Departure
in the first
thought
them here

Third Method, ditto.

	Area.	Deduct
E	2,2356	
E	9,8568	
E	1,3398	
E	3,8544	
W	4,3160	
W	1,2564	
W	19,2625	
W	26,5196	
W	16,0571	
W		2,5960
W		10,3730
W	5,2850	
W	2,2479	
92,2311		12,9690
12,9690		
7,92621		

. The Latitudes and
partures being retained
the first Method, it was
ought needless to insert
m here.

Remarks.



BY this Method the first Meridian is supposed to pass thro' the first Station, and the Survey, as in the rest, kept on the Right Hand, and hence the following Rule for solving it :

“ The Meridian Distance when east multiplied into the Southings, and the Meridian Distance when West into the Northings.”

Likewise,

“ The Meridian Distance when East into the Northings, and the Meridian Distance when West into the Southings.”

“ The Sum of the former less by the Sum of the latter, is the Area of the Map or Survey.”

Here the Eastings as before are marked with + and the Westings with —, and are to be each of them respectively added to the Meridian Distance preceding, according to the Nature of the Signs (as the Northings and Southings were in Mr. BURGH's Criterion Column) the Letter E being placed opposite every Affirmative, and W opposite every Negative Total. Therefore, since the first Meridian is supposed to pass thro' the first Station, the Half Departure of said Station is the Meridian Distance to be first inserted, thus 0,81 E. is put down and added to itself = 1,62, the whole Departure or Easting at the End of said Station ; to this is again added the Easting of the second, &c. At the 4th the Sign changes, 1,08 the Departure of the 3d Station to be added, being —, or W. after which the Totals continue W. all the Way down. This Column being thus completed, the Meridian Distance, and every Latitude adjacent thereto, must be multiplied together (as before) and the several Products placed in their proper Columns, i. e. Eastings into Southings, or Westings into Northings under Area ; but Eastings into Northings, or Westings into Southings (as the 10th and 11th) under Deductions. The Difference between the Sums of which is the Area sought.

☞ Compare these several Products and their Sums with the former.

Mr. NOBLE's Method applied to the Calculation of the foregoing FIELD-NOTES.

	St.	N.	S.	E.	W.	L.N.	L.S.	L.A.	D.S.
Ex. E.	1		2,76	1,62		2,76		2,76	4,4712+
	2		4,44	1,20		7,20	5,15	9,96	11,9520+
	3		0,77		2,16		4,38	9,53	20,5848+
Ex. S.	4		4,38	0,44			0,00	4,38	1,9272-
	5	2,60			5,52		2,60	2,60	14,3520+
	6	0,36		1,86			2,96	5,56	10,3416-
Ex. W.	7	3,35			6,38	6,04	6,31	9,27	59,1426+
	8	3,34		2,00		2,70		8,74	17,4808+
	9	2,11			1,34	0,59		3,29	4,4086-
Ex. N.	10		0,40	3,58		0,99		1,58	5,6564+
	11		2,53	1,20		3,52		4,51	5,4120+
	12	1,75		0,96		1,77		5,29	5,0784+
	13	1,77		2,54		0,00		1,77	4,4958+

Sum of the + 148,6252
Sum of the — 16,6774

2) 131,9478

Area of the Angled Spaces 65,9739

N. B. Had we begun to calculate from the extreme Points East and West (which is the second Method) the Deductions would have been the same as, or on the same Stations with, Mr. GIBSON's third Method, which see.

Remarks.

BY examining either the Notes or a Protraction of them, the 4 greatest extreme Points will be found to be the 2d, 4th, 7th, and 13th Stations; the 2d being the greatest extreme Point East; the 4th the greatest extreme South; the 7th the greatest Extreme West, and the 13th the greatest extreme Point North: Likewise, the 4th, 6th, 9th, 10th, and 11th will appear to be indirect or retrograde Stations, the 10th and 11th being indirect with respect to Latitude, and the 4th, 6th, and 9th with respect to Departure; therefore

From 15,28 the Sum of the whole Northings or Southings,
Take 2,93 the Sum of the Lat. of the 10th and 11th Stations.

Remains 12,35 = one Side of the circumscribing Parallelogram.

Again,

From 15,40 the Sum of the whole Eastings or Westings,
Take 3,64 the Sum of the Departures of 4th, 6th, and 9th Stat.

Remains 11,76 = the other Side of the circumscribing Parallelogram.

Therefore 12,35 multiplied by 11,76 produces 145,2360 = the Area of the circumscribing Parallelogram.

Now, beginning at each of the extreme Points N. and S. or at 0,00 in each of the Columns L. N. and L. S. we proceed (by the Rule) to the extreme Points East and West, in order to complete said Columns; after which every two contiguous Latitudes are added together to complete the Column marked L. A. The Numbers of which Column are multiplied by the particular Easting or Westing of every opposite Station, to complete the Column marked D. S. In which Column the Products of all such Stations as had indirect Departure (such as the 4th, 6th, and 9th) are distinguished by the Sign —, and all the Rest with +, signifying that the Sum of the — Products are to be deducted from the Sum of the +, viz. 16,6774 from 148,6252, which leaves 131,9478 = twice the Sum of the angular Spaces: The Semi-sum of which taken from the Area of the circumscribing Parallelogram leaves 79,2621 the Area in Square four-pole Chains, the same as before.

Those being the only Methods made Use of for determining the Area of Surveys arithmetically, it behooves every Practitioner diligently to compare one with the other, as a judicious Choice may save him Abundance of Trouble.



CALCULATION of the foregoing Notes,

By MR. HARDING's 1st. Method.

	N.	S.	E.	W.	M. D. 1.62	D. D.	Area.	Deduct.
1		2.76	1.62		3.24 E.	4.86 E.	13.4136	
2		4.44	1.20		4.44 E.	7.68 E.	34.0992	
3		0.77		2.16	2.28 E.	6.72 E.	5.1744	
4		4.38	0.44		2.72 E.	5.00 E.	21.9000	
5	2.60			5.52	2.80 W.	0.08 W.	.2080	
6	0.36		1.86		0.94 W.	3.74 W.	1.3464	
7	3.35			6.38	7.32 W.	8.26 W.	27.6710	
8	3.34		2.00		5.32 W.	12.64 W.	42.2176	
9	2.11			1.34	6.66 W.	11.98 W.	25.2778	
10		0.40	3.58		3.08 W.	9.74 W.		3.8960
11		2.53	1.20		1.88 W.	4.96 W.		12.5488
12	1.75		0.96		0.92 W.	2.80 W.	4.9000	
13	1.77		2.54		1.62 E.	0.70 E.		1.2390

15.28 15.28 15.40 15.40

176.2080 17.6838

17.6838

20) 158.5242

Area as before.

7 92621

Let the Note at the Bottom of NOBLE's Method be applied here; as the above Specimen is the Result of a later Deliberation.

R E M A R K S.

THIS Method may be called a Compound of BURGH's and GIBSON's, without being intimately connected with either. — Its Operation is entirely independent of *Burgh's* four greatest Extremes, though it includes his Latitude Column, and, in one Respect, it is governed by *Gibson's* Rules, though it is not in the least guided by his Practice. Like *Burgh's* it is performed by LATITUDE and WHOLE DEPARTURE, yet will admit of every Change and Variety that *Gibson* imagined was peculiar to HALF DEPARTURE only. — It allows the first Meridian to pass at any Distance from the first Station, not less than the first Latitude or first Departure. — This Example supposes the first Meridian to pass at the Distance of the first Easting from the first Station of the Survey, and the M. D. Column is completed by one single Addition of the Eastings, or one single Subtraction of the Westings, to or from each preceding one, agreeable to the Nature of the Signs. The D. D. or Double Distance Column is completed like *Burgh's* double Latitude or T. Column, by the Addition of every two adjacent Latitudes, beginning with the first and last, but with this material Difference, that it is entirely subject to the Influence of the Signs, as will appear by a close Inspection of the Work. The Area and Deduction Columns, are exactly similar to *Gibson's* third Method, and his Rules, in this Case, are applicable to it. In short it comprises every one of *Gibson's* Methods without being confined to any, and as the present Example will admit of FOUR INFLECTIONS, according as the first Easting, first Westing, first Northing, or first Southing are employed in completing the M. D. or P. D. Column, so will a Change of the Meridian or Parallel Distance from the Distance of the first Departure, &c. to a Number equal to, or greater than, the Sum of all the Departures or Latitudes together, admit of FOUR MORE; but as, in the former Case, the Products are to be placed under Columns of Area and Deduction, so in the latter they must be put under Columns of N. Area and S. Area, agreeable to *Gibson's* 1st or 2d Methods, or under E. Area and W. Area, agreeable to *Burgh's*. — However one Variation of this Method will be sufficient to prove the Truth of any Calculation, *without the Assistance of a Map*; which Observation I think worthy the Attention of every Practitioner.

N. B. The four last Methods do not depend upon the Signs + and —, being performed simply, by a bare Addition of the Eastings and Subtraction of the Westings, or an Addition of the Westings and Subtraction of the Eastings (which ever may be thought most convenient) to and from the MERIDIAN DISTANCE preceding (the first being not less than the Sum of the whole Eastings or Westings): Or an Addition of the Northings, and Subtraction of the Southings, &c. to and from each PARALLEL DISTANCE preceding (the first being not less than the Sum of the whole Northings or Southings): For this Reason I recommend one of these to a young Practitioner, to begin with, especially if he be unacquainted with Addition and Subtraction of Algebraic Quantities, and when he becomes perfect Master of them, he can have Recourse to any one of the first four, which he will find much more concise, and less tedious in its Operation. — But as there is equal Certainty in all, and one's Memory is not so much employed, or Ingenuity exercised in the latter as in the former, it is very possible that the Simplicity of the one may be thought, in most Cases, equivalent to the Expedition of the other; so that a decided Preference of any would be premature.



AUXILIARY TABLE.—To be first used.

Bearings.	Dist.	Lat.	Dep.	Bearings.	Dist.	Lat.	Dep.	Bearings.	Dist.	Lat.	Dep.
		Dep.	Lat.			Dep.	Lat.			Dep.	Lat.
1° 89°	18	18.00	0.31	15¼ 74¾	18	17.37	4.73	28¾ 61¼	36	31.56	17.32
	45	44.99	0.79		46	44.38	12.10		78	68.38	37.52
4¼ 85¾	38	37.90	2.82	15¾ 74¾	34	32.72	9.23	31¼ 58¾	49	41.89	25.42
	59	58.84	4.37		77	74.11	20.90	32 58	95	80.56	50.24
5 85	52	51.80	4.53	17¼ 72¾	75	71.63	22.24	32¼ 57¾	34	28.75	18.14
6¼ 83¾	62	61.63	6.75	21½ 68½	67	62.34	24.56	32¾ 57¾	5	4.20	2.70
	63	62.63	6.86	22½ 67½	53	48.97	20.28		13	10.93	7.03
7½ 82½	23	22.80	3.00	24 66	97	88.61	39.45		15	12.62	8.11
	24	23.79	3.13	25¾ 64¼	6	5.40	2.61		21	17.66	11.36
	25	24.79	3.26	26 64	7	6.29	3.07		28	23.55	15.15
	28	27.76	3.65	26¾ 63¾	36	32.15	16.20	33 57	51	42.77	27.78
	29	28.75	3.79		67	59.83	30.16		52	43.61	28.32
	30	29.74	3.92		95	84.83	42.76		53	44.45	28.87
	31	30.73	4.05	27 63	92	81.97	41.77		54	45.29	29.41
	32	31.73	4.18		93	82.86	42.22		55	46.13	29.96
	33	32.72	4.31		94	83.75	42.68		56	46.97	30.50
	34	33.71	4.44		95	84.65	43.13		57	47.80	31.04
	35	34.70	4.57		96	85.54	43.58		58	48.64	31.59
	36	35.69	4.70		97	86.43	44.04		59	49.48	32.13
	37	36.68	4.83		98	87.32	44.49	34 56	71	58.86	39.70
	38	37.67	4.96		99	88.21	44.95	34¾ 55¼	10	8.22	5.70
	39	38.67	5.09	27¼ 62¾	23	20.45	10.53	35¼ 54¾	6	4.90	3.46
	40	39.66	5.22	27½ 62½	29	25.72	13.29		51	41.65	29.43
	41	40.65	5.35	27¾ 62¼	5	4.42	2.33	36½ 53½	66	53.05	39.36
	42	41.64	5.48		29	25.66	13.50	37½ 52½	96	76.16	58.44
	43	42.63	5.61		87	76.99	40.51	38¾ 51¼	76	59.27	47.57
	44	43.62	5.74		95	84.07	44.23	40 50	10	7.66	6.43
	45	44.62	5.87		97	85.84	45.16	40¾ 49¼	8	6.06	5.22
	46	45.61	6.00	28 62	43	37.97	20.19	41¼ 48¾	61	45.86	40.22
	47	46.60	6.13		46	40.62	21.60		62	46.61	40.88
	48	47.59	6.27		47	41.50	22.07		63	47.37	41.54
	49	48.58	6.40		48	42.38	22.53		64	48.12	42.20
	50	49.57	6.53		49	43.26	23.00		65	48.87	42.86
9¾ 80¼	59	58.15	9.99	28¼ 61¾	18	15.86	8.52		66	49.62	43.52
	75	73.92	12.70		25	22.02	11.83		67	50.37	44.18
10 80	56	55.15	9.72	28½ 61½	31	27.24	14.79		68	51.13	44.84
	85	83.71	14.76		32	28.12	15.27		69	51.88	45.49
	87	85.68	15.11		33	29.00	15.75		70	52.63	46.15
	88	86.66	15.28		34	29.88	16.22	42¾ 47¼	47	34.51	31.80
	89	87.65	15.45		35	30.76	16.70	43 47	1	0.73	0.68
	90	88.63	15.63		36	31.64	17.18	43¼ 46¾	14	10.20	9.59
10½ 79½	91	89.48	16.58		37	32.52	17.65	43½ 46½	27	19.59	18.59
11¼ 78¾	68	66.69	13.27		38	33.40	18.13	43¾ 46¼	38	27.86	26.16
	10	9.79	2.04		39	34.27	18.61	44 46	58	41.72	40.29
11½ 78¼	50	48.95	10.18	28½ 61½	66	58.00	31.49		60	43.16	41.68
	46	45.00	9.56		67	58.88	31.97		62	44.60	43.06
12 78	89	86.97	18.88		68	59.76	32.45		98	70.30	68.08
12¼ 77¾	23	22.45	4.08		69	60.64	32.92	44¼ 45¾	58	41.55	40.47

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And continued from ONE to the Distance of
ONE HUNDRED Miles or Chains.

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D U B L I N :

PRINTED IN THE YEAR, M,DCC,LXXXVIII.

TRAVERSE TABLE.

67

Distance.	0 Degrees.					
	$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	1,00	0,00	1,00	0,01	1,00	0,01
2	2,00	0,01	2,00	0,02	2,00	0,03
3	3,00	0,01	3,00	0,03	3,00	0,04
4	4,00	0,02	4,00	0,03	4,00	0,05
5	5,00	0,02	5,00	0,04	5,00	0,07
6	6,00	0,03	6,00	0,05	6,00	0,08
7	7,00	0,03	7,00	0,06	7,00	0,09
8	8,00	0,04	8,00	0,07	8,00	0,10
9	9,00	0,04	9,00	0,08	9,00	0,12
10	10,00	0,04	10,00	0,09	10,00	0,13
11	11,00	0,05	11,00	0,10	11,00	0,14
12	12,00	0,05	12,00	0,10	12,00	0,16
13	13,00	0,06	13,00	0,11	13,00	0,17
14	14,00	0,06	14,00	0,12	14,00	0,18
15	15,00	0,07	15,00	0,13	15,00	0,20
16	16,00	0,07	16,00	0,14	16,00	0,21
17	17,00	0,07	17,00	0,15	17,00	0,22
18	18,00	0,08	18,00	0,16	18,00	0,24
19	19,00	0,08	19,00	0,17	19,00	0,25
20	20,00	0,09	20,00	0,17	20,00	0,26
21	21,00	0,09	21,00	0,18	21,00	0,28
22	22,00	0,10	22,00	0,19	22,00	0,29
23	23,00	0,10	23,00	0,20	23,00	0,30
24	24,00	0,10	24,00	0,21	24,00	0,31
25	25,00	0,11	25,00	0,22	25,00	0,33
26	26,00	0,11	26,00	0,23	26,00	0,34
27	27,00	0,12	27,00	0,24	27,00	0,35
28	28,00	0,12	28,00	0,24	28,00	0,37
29	29,00	0,13	29,00	0,25	29,00	0,38
30	30,00	0,13	30,00	0,26	30,00	0,39
31	31,00	0,14	31,00	0,27	31,00	0,41
32	32,00	0,14	32,00	0,28	32,00	0,42
33	33,00	0,14	33,00	0,29	33,00	0,43
34	34,00	0,15	34,00	0,30	34,00	0,44
35	35,00	0,15	35,00	0,31	35,00	0,46
36	36,00	0,16	36,00	0,31	36,00	0,47
37	37,00	0,16	37,00	0,32	37,00	0,48
38	38,00	0,17	38,00	0,33	38,00	0,50
39	39,00	0,17	39,00	0,34	39,00	0,51
40	40,00	0,17	40,00	0,35	40,00	0,52
41	41,00	0,18	41,00	0,36	41,00	0,54
42	42,00	0,18	42,00	0,37	42,00	0,55
43	43,00	0,19	43,00	0,38	43,00	0,56
44	44,00	0,19	44,00	0,38	44,00	0,58
45	45,00	0,20	45,00	0,39	45,00	0,59
46	46,00	0,20	46,00	0,40	46,00	0,60
47	47,00	0,21	47,00	0,41	47,00	0,61
48	48,00	0,21	48,00	0,42	48,00	0,63
49	49,00	0,21	49,00	0,43	49,00	0,64
50	50,00	0,22	50,00	0,44	50,00	0,65
Distance.	89 Degrees.					
	$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.



TRAVERSE TABLE. 67.

2

Distance.	o Degrees					
	$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	51,00	0,22	51,00	0,45	50,99	0,67
52	52,00	0,23	52,00	0,45	51,99	0,68
53	53,00	0,23	53,00	0,46	52,99	0,69
54	54,00	0,24	54,00	0,47	53,99	0,71
55	55,00	0,24	55,00	0,48	54,99	0,72
56	56,00	0,24	56,00	0,49	55,99	0,73
57	57,00	0,25	57,00	0,50	56,99	0,75
58	58,00	0,25	58,00	0,51	57,99	0,76
59	59,00	0,26	59,00	0,51	58,99	0,77
60	60,00	0,26	60,00	0,52	59,99	0,79
61	61,00	0,27	61,00	0,53	60,99	0,80
62	62,00	0,27	62,00	0,54	61,99	0,81
63	63,00	0,28	63,00	0,55	62,99	0,82
64	64,00	0,28	64,00	0,56	63,99	0,84
65	65,00	0,28	65,00	0,57	64,99	0,85
66	66,00	0,29	66,00	0,58	65,99	0,86
67	67,00	0,29	67,00	0,58	66,99	0,88
68	68,00	0,30	68,00	0,59	67,99	0,89
69	69,00	0,30	69,00	0,60	68,99	0,90
70	70,00	0,31	70,00	0,61	69,99	0,92
71	71,00	0,31	71,00	0,62	70,99	0,93
72	72,00	0,31	72,00	0,63	71,99	0,94
73	73,00	0,32	73,00	0,64	72,99	0,96
74	74,00	0,32	74,00	0,65	73,99	0,97
75	75,00	0,33	75,00	0,65	74,99	0,98
76	76,00	0,33	76,00	0,66	75,99	0,99
77	77,00	0,34	77,00	0,67	76,99	1,01
78	78,00	0,34	78,00	0,68	77,99	1,02
79	79,00	0,35	79,00	0,69	78,99	1,03
80	80,00	0,35	80,00	0,70	79,99	1,05
81	81,00	0,35	81,00	0,71	80,99	1,06
82	82,00	0,36	82,00	0,72	81,99	1,07
83	83,00	0,36	83,00	0,72	82,99	1,09
84	84,00	0,37	84,00	0,73	83,99	1,10
85	85,00	0,37	85,00	0,74	84,99	1,11
86	86,00	0,38	86,00	0,75	85,99	1,13
87	87,00	0,38	87,00	0,76	86,99	1,14
88	88,00	0,38	88,00	0,77	87,99	1,15
89	89,00	0,39	89,00	0,78	88,99	1,16
90	90,00	0,39	90,00	0,79	89,99	1,18
91	91,00	0,40	91,00	0,79	90,99	1,19
92	92,00	0,40	92,00	0,80	91,99	1,20
93	93,00	0,41	93,00	0,81	92,99	1,22
94	94,00	0,41	94,00	0,82	93,99	1,23
95	95,00	0,41	95,00	0,83	94,99	1,24
96	96,00	0,42	96,00	0,84	95,99	1,26
97	97,00	0,42	97,00	0,85	96,99	1,27
98	98,00	0,43	98,00	0,86	97,99	1,28
99	99,00	0,43	99,00	0,86	98,99	1,30
100	100,0	0,44	100,0	0,87	99,99	1,31
Distance.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	89 Degrees					

Distance	1 Degree							
	0 Min:		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	1,00	0,02	1,00	0,02	1,00	0,03	1,00	0,03
2	2,00	0,04	2,00	0,04	2,00	0,05	2,00	0,06
3	3,00	0,05	3,00	0,07	3,00	0,08	3,00	0,09
4	4,00	0,07	4,00	0,09	4,00	0,10	4,00	0,12
5	5,00	0,09	5,00	0,11	5,00	0,13	5,00	0,15
6	6,00	0,11	6,00	0,13	6,00	0,16	6,00	0,18
7	7,00	0,12	7,00	0,15	7,00	0,18	7,00	0,21
8	8,00	0,14	8,00	0,18	8,00	0,21	8,00	0,25
9	9,00	0,16	9,00	0,20	9,00	0,24	9,00	0,28
10	10,00	0,18	10,00	0,22	10,00	0,26	10,00	0,31
11	11,00	0,19	11,00	0,24	11,00	0,28	11,00	0,34
12	12,00	0,21	12,00	0,26	12,00	0,31	11,99	0,37
13	13,00	0,23	13,00	0,28	13,00	0,34	12,99	0,40
14	14,00	0,25	14,00	0,31	14,00	0,37	13,99	0,43
15	15,00	0,26	15,00	0,33	15,00	0,39	14,99	0,46
16	16,00	0,28	16,00	0,35	16,00	0,42	15,99	0,49
17	17,00	0,30	17,00	0,37	17,00	0,45	16,99	0,52
18	18,00	0,32	18,00	0,39	17,99	0,47	17,99	0,55
19	19,00	0,33	19,00	0,42	18,99	0,50	18,99	0,58
20	20,00	0,35	20,00	0,44	19,99	0,52	19,99	0,61
21	21,00	0,37	21,00	0,46	20,99	0,55	20,99	0,64
22	22,00	0,38	22,00	0,48	21,99	0,58	21,99	0,67
23	23,00	0,40	23,00	0,50	22,99	0,60	22,99	0,70
24	24,00	0,42	24,00	0,52	23,99	0,63	23,99	0,73
25	25,00	0,44	24,99	0,55	24,99	0,65	24,99	0,76
26	26,00	0,45	25,99	0,57	25,99	0,68	25,99	0,79
27	27,00	0,47	26,99	0,59	26,99	0,71	26,99	0,83
28	28,00	0,49	27,99	0,61	27,99	0,73	27,99	0,86
29	29,00	0,51	28,99	0,63	28,99	0,76	28,99	0,89
30	30,00	0,52	29,99	0,65	29,99	0,79	29,99	0,92
31	31,00	0,54	30,99	0,68	30,99	0,81	30,99	0,95
32	32,00	0,56	31,99	0,70	31,99	0,84	31,99	0,98
33	33,00	0,58	32,99	0,72	32,99	0,86	32,99	1,01
34	33,99	0,59	33,99	0,74	33,99	0,89	33,99	1,04
35	34,99	0,61	34,99	0,76	34,99	0,92	34,99	1,07
36	35,99	0,63	35,99	0,79	35,99	0,94	35,99	1,10
37	36,99	0,65	36,99	0,81	36,99	0,97	36,98	1,13
38	37,99	0,66	37,99	0,83	37,99	0,99	37,98	1,16
39	38,99	0,68	38,99	0,85	38,99	1,02	38,98	1,19
40	39,99	0,70	39,99	0,87	39,99	1,05	39,98	1,22
41	40,99	0,72	40,99	0,89	40,99	1,07	40,98	1,25
42	41,99	0,73	41,99	0,92	41,99	1,10	41,98	1,28
43	42,99	0,75	42,99	0,94	42,99	1,13	42,98	1,31
44	43,99	0,77	43,99	0,96	43,99	1,15	43,98	1,34
45	44,99	0,79	44,99	0,98	44,99	1,18	44,98	1,37
46	45,99	0,80	45,99	1,00	45,99	1,20	45,98	1,40
47	46,99	0,82	46,99	1,03	46,99	1,23	46,98	1,44
48	47,99	0,84	47,99	1,05	47,98	1,26	47,98	1,47
49	48,99	0,86	48,99	1,07	48,98	1,28	48,98	1,50
50	49,99	0,87	49,99	1,09	49,98	1,31	49,98	1,53
Distance	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	86 Deg.				88 Degrees			

TRAVERSE TABLE. 67.

4

Distance	1 Degree							
	0		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,99	0,89	50,99	1,11	50,98	1,34	50,98	1,56
52	51,99	0,91	51,99	1,14	51,98	1,36	51,98	1,59
53	52,99	0,93	52,99	1,16	52,98	1,39	52,98	1,62
54	53,99	0,94	53,99	1,18	53,98	1,41	53,98	1,65
55	54,99	0,96	54,99	1,20	54,98	1,44	54,98	1,68
56	55,99	0,98	55,99	1,22	55,98	1,47	55,98	1,71
57	56,99	1,00	56,99	1,24	56,98	1,49	56,97	1,74
58	57,99	1,01	57,99	1,27	57,98	1,52	57,97	1,77
59	58,99	1,03	58,99	1,29	58,98	1,54	58,97	1,80
60	59,99	1,05	59,99	1,31	59,98	1,57	59,97	1,83
61	60,99	1,06	60,98	1,33	60,98	1,60	60,97	1,86
62	61,99	1,08	61,98	1,35	61,98	1,62	61,97	1,89
63	62,99	1,10	62,98	1,38	62,98	1,65	62,97	1,92
64	63,99	1,12	63,98	1,40	63,98	1,67	63,97	1,95
65	64,99	1,13	64,98	1,42	64,98	1,70	64,97	1,99
66	65,99	1,15	65,98	1,44	65,98	1,73	65,97	2,02
67	66,99	1,17	66,98	1,46	66,98	1,75	66,97	2,05
68	67,99	1,19	67,98	1,48	67,98	1,78	67,97	2,08
69	68,99	1,20	68,98	1,51	68,98	1,81	68,97	2,11
70	69,99	1,22	69,98	1,53	69,98	1,83	69,97	2,14
71	70,99	1,24	70,98	1,55	70,98	1,86	70,97	2,17
72	71,99	1,26	71,98	1,57	71,98	1,88	71,97	2,20
73	72,99	1,27	72,98	1,59	72,98	1,91	72,97	2,23
74	73,99	1,29	73,98	1,62	73,98	1,94	73,97	2,26
75	74,99	1,31	74,98	1,64	74,98	1,96	74,97	2,29
76	75,99	1,33	75,98	1,66	75,97	1,99	75,97	2,32
77	76,99	1,34	76,98	1,68	76,97	2,02	76,97	2,35
78	77,99	1,36	77,98	1,70	77,97	2,04	77,96	2,38
79	78,99	1,38	78,98	1,72	78,97	2,07	78,96	2,41
80	79,99	1,40	79,98	1,75	79,97	2,09	79,96	2,44
81	80,99	1,41	80,98	1,77	80,97	2,12	80,96	2,47
82	81,99	1,43	81,98	1,79	81,97	2,15	81,96	2,50
83	82,99	1,45	82,98	1,81	82,97	2,17	82,96	2,54
84	83,99	1,47	83,98	1,83	83,97	2,20	83,96	2,57
85	84,99	1,48	84,98	1,85	84,97	2,23	84,96	2,60
86	85,99	1,50	85,98	1,88	85,97	2,25	85,96	2,63
87	86,99	1,52	86,98	1,90	86,97	2,28	86,96	2,66
88	87,99	1,54	87,98	1,92	87,97	2,30	87,96	2,69
89	88,99	1,55	88,98	1,94	88,97	2,33	88,96	2,72
90	89,99	1,57	89,98	1,96	89,97	2,36	89,96	2,75
91	90,99	1,59	90,98	1,99	90,97	2,38	90,96	2,78
92	91,99	1,61	91,98	2,01	91,97	2,41	91,96	2,81
93	92,99	1,62	92,98	2,03	92,97	2,43	92,96	2,84
94	93,99	1,64	93,98	2,05	93,97	2,46	93,96	2,87
95	94,99	1,66	94,98	2,07	94,97	2,49	94,96	2,90
96	95,99	1,68	95,98	2,09	95,97	2,51	95,96	2,94
97	96,99	1,69	96,98	2,12	96,97	2,54	96,96	2,96
98	97,99	1,71	97,98	2,14	97,97	2,57	97,96	2,99
99	98,99	1,73	98,98	2,16	98,97	2,59	98,95	3,02
100	99,99	1,75	99,98	2,18	99,97	2,62	99,95	3,05
Distance	Dep.		Lat.		Dep.		Lat.	
	Lat.		Dep.		Lat.		Dep.	
	0		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
89 Deg.								
88 Degrees								

Distance.	2 Degrees							
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	1,00	0,04	1,00	0,04	1,00	0,04	1,00	0,05
2	2,00	0,07	2,00	0,08	2,00	0,09	2,00	0,10
3	3,00	0,11	3,00	0,12	3,00	0,13	3,00	0,14
4	4,00	0,14	4,00	0,16	4,00	0,18	4,00	0,19
5	5,00	0,18	5,00	0,20	5,00	0,22	4,99	0,24
6	6,00	0,21	6,00	0,24	5,99	0,26	5,99	0,29
7	7,00	0,24	7,00	0,28	6,99	0,31	6,99	0,34
8	7,99	0,28	7,99	0,31	7,99	0,35	7,99	0,38
9	8,99	0,31	8,99	0,35	8,99	0,39	8,99	0,43
10	9,99	0,35	9,99	0,39	9,99	0,44	9,99	0,48
11	10,99	0,38	10,99	0,43	10,99	0,48	10,99	0,53
12	11,99	0,42	11,99	0,47	11,99	0,52	11,99	0,58
13	12,99	0,45	12,99	0,51	12,99	0,57	12,99	0,62
14	13,99	0,49	13,99	0,55	13,99	0,61	13,98	0,67
15	14,99	0,52	14,99	0,59	14,99	0,65	14,98	0,72
16	15,99	0,56	15,99	0,63	15,99	0,70	15,98	0,77
17	16,99	0,59	16,99	0,67	16,98	0,74	16,98	0,82
18	17,99	0,63	17,99	0,71	17,98	0,79	17,98	0,86
19	18,99	0,66	18,99	0,75	18,98	0,83	18,98	0,91
20	19,99	0,70	19,99	0,79	19,98	0,87	19,98	0,96
21	20,99	0,73	20,99	0,83	20,98	0,92	20,98	1,01
22	21,99	0,77	21,98	0,86	21,98	0,96	21,98	1,06
23	22,99	0,80	22,98	0,90	22,98	1,00	22,97	1,10
24	23,99	0,84	23,98	0,94	23,98	1,05	23,97	1,15
25	24,99	0,87	24,98	0,98	24,98	1,09	24,97	1,20
26	25,98	0,91	25,98	1,02	25,98	1,13	25,97	1,25
27	26,98	0,94	26,98	1,06	26,97	1,18	26,97	1,30
28	27,98	0,98	27,98	1,10	27,97	1,22	27,97	1,34
29	28,98	1,01	28,98	1,14	28,97	1,27	28,97	1,39
30	29,98	1,05	29,98	1,18	29,97	1,31	29,97	1,44
31	30,98	1,08	30,98	1,22	30,97	1,35	30,97	1,49
32	31,98	1,12	31,98	1,26	31,97	1,40	31,96	1,54
33	32,98	1,15	32,98	1,30	32,97	1,44	32,96	1,58
34	33,98	1,19	33,97	1,34	33,97	1,48	33,96	1,63
35	34,98	1,22	34,97	1,37	34,97	1,53	34,96	1,68
36	35,98	1,26	35,97	1,41	35,97	1,57	35,96	1,73
37	36,98	1,29	36,97	1,45	36,97	1,61	36,96	1,78
38	37,98	1,33	37,97	1,49	37,96	1,66	37,96	1,82
39	38,98	1,36	38,97	1,53	38,96	1,70	38,96	1,87
40	39,98	1,40	39,97	1,57	39,96	1,75	39,95	1,92
41	40,98	1,43	40,97	1,61	40,96	1,79	40,95	1,97
42	41,97	1,47	41,97	1,65	41,96	1,83	41,95	2,02
43	42,97	1,50	42,97	1,69	42,96	1,88	42,95	2,06
44	43,97	1,54	43,97	1,73	43,96	1,92	43,95	2,11
45	44,97	1,57	44,97	1,77	44,96	1,96	44,95	2,16
46	45,97	1,61	45,97	1,81	45,96	2,01	45,95	2,21
47	46,97	1,64	46,97	1,85	46,96	2,05	46,95	2,26
48	47,97	1,68	47,96	1,88	47,95	2,09	47,95	2,30
49	48,97	1,71	48,96	1,92	48,95	2,14	48,94	2,35
50	49,97	1,75	49,96	1,96	49,95	2,18	49,94	2,40
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	o Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	88 Deg.		87 Degrees					

TRAVERSE TABLE. 67. 6

Distance	2 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,97	1,78	50,96	2,00	50,95	2,23	50,94	2,45
52	51,97	1,82	51,96	2,04	51,95	2,27	51,94	2,50
53	52,97	1,85	52,96	2,08	52,95	2,31	52,94	2,54
54	53,97	1,89	53,96	2,12	53,95	2,36	53,94	2,59
55	54,97	1,92	54,96	2,16	54,95	2,40	54,94	2,64
56	55,97	1,95	55,96	2,20	55,95	2,44	55,94	2,69
57	56,97	1,99	56,96	2,24	56,95	2,49	56,94	2,74
58	57,97	2,02	57,96	2,28	57,95	2,53	57,94	2,78
59	58,96	2,06	58,96	2,32	58,94	2,57	58,93	2,83
60	59,96	2,09	59,95	2,36	59,94	2,62	59,93	2,88
61	60,96	2,13	60,95	2,40	60,94	2,66	60,93	2,93
62	61,96	2,16	61,95	2,43	61,94	2,70	61,93	2,98
63	62,96	2,20	62,95	2,47	62,94	2,75	62,93	3,02
64	63,96	2,23	63,95	2,51	63,94	2,79	63,93	3,07
65	64,96	2,27	64,95	2,55	64,94	2,84	64,93	3,12
66	65,96	2,30	65,95	2,59	65,94	2,88	65,93	3,17
67	66,96	2,34	66,95	2,63	66,94	2,92	66,93	3,22
68	67,96	2,37	67,95	2,67	67,94	2,97	67,93	3,26
69	68,96	2,41	68,95	2,71	68,94	3,01	68,93	3,31
70	69,96	2,44	69,95	2,75	69,93	3,05	69,92	3,36
71	70,96	2,48	70,95	2,79	70,93	3,10	70,92	3,41
72	71,96	2,51	71,95	2,83	71,93	3,14	71,92	3,46
73	72,96	2,55	72,94	2,87	72,93	3,18	72,92	3,50
74	73,96	2,58	73,94	2,91	73,93	3,23	73,92	3,55
75	74,96	2,61	74,94	2,94	74,93	3,27	74,92	3,60
76	75,96	2,65	75,94	2,98	75,93	3,31	75,92	3,65
77	76,96	2,69	76,94	3,02	76,93	3,36	76,92	3,70
78	77,96	2,73	77,94	3,06	77,93	3,40	77,92	3,74
79	78,95	2,76	78,94	3,10	78,93	3,45	78,92	3,79
80	79,95	2,79	79,94	3,14	79,93	3,49	79,92	3,84
81	80,95	2,83	80,94	3,18	80,92	3,53	80,91	3,89
82	81,95	2,86	81,94	3,22	81,92	3,58	81,91	3,94
83	82,95	2,90	82,94	3,26	82,92	3,62	82,91	3,98
84	83,95	2,93	83,94	3,30	83,92	3,66	83,91	4,03
85	84,95	2,97	84,94	3,34	84,92	3,71	84,90	4,08
86	85,95	3,00	85,93	3,38	85,92	3,75	85,90	4,13
87	86,95	3,04	86,93	3,42	86,92	3,79	86,90	4,18
88	87,95	3,07	87,93	3,46	87,92	3,84	87,90	4,22
89	88,95	3,11	88,93	3,49	88,92	3,88	88,90	4,27
90	89,95	3,14	89,93	3,53	89,92	3,93	89,90	4,32
91	90,95	3,18	90,93	3,57	90,91	3,97	90,90	4,37
92	91,94	3,21	91,93	3,61	91,91	4,01	91,90	4,41
93	92,94	3,25	92,93	3,65	92,91	4,05	92,89	4,46
94	93,94	3,28	93,93	3,69	93,91	4,10	93,89	4,51
95	94,94	3,32	94,93	3,73	94,91	4,14	94,89	4,56
96	95,94	3,35	95,93	3,77	95,91	4,19	95,89	4,61
97	96,94	3,39	96,93	3,81	96,91	4,23	96,89	4,65
98	97,94	3,42	97,93	3,85	97,91	4,28	97,89	4,70
99	98,94	3,46	98,92	3,89	98,91	4,32	98,89	4,75
100	99,94	3,49	99,92	3,93	99,91	4,36	99,89	4,80
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	$\frac{3}{4}$		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	88 Deg.		87 Degrees					

7 TRAVERSE TABLE. 67.

Distance	3 Degrees							
	0		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	1,00	0,05	1,00	0,06	1,00	0,06	1,00	0,06
2	2,00	0,11	2,00	0,11	2,00	0,12	2,00	0,13
3	3,00	0,16	3,00	0,17	2,99	0,18	2,99	0,20
4	4,00	0,21	4,00	0,23	3,99	0,24	3,99	0,26
5	4,99	0,26	4,99	0,28	4,99	0,31	4,99	0,33
6	5,99	0,31	5,99	0,34	5,99	0,37	5,99	0,39
7	6,99	0,37	6,99	0,40	6,99	0,43	6,99	0,46
8	7,99	0,42	7,99	0,45	7,99	0,49	7,98	0,52
9	8,99	0,47	8,99	0,51	8,98	0,55	8,98	0,59
10	9,99	0,52	9,99	0,57	9,98	0,61	9,98	0,65
11	10,99	0,58	10,98	0,62	10,98	0,67	10,98	0,72
12	11,98	0,63	11,98	0,68	11,98	0,73	11,97	0,79
13	12,98	0,68	12,98	0,74	12,98	0,79	12,97	0,85
14	13,98	0,73	13,98	0,79	13,97	0,86	13,97	0,92
15	14,98	0,79	14,98	0,85	14,97	0,92	14,97	0,98
16	15,98	0,84	15,97	0,91	15,97	0,98	15,97	1,05
17	16,98	0,89	16,97	0,96	16,97	1,04	16,96	1,11
18	17,98	0,94	17,97	1,02	17,97	1,10	17,96	1,18
19	18,98	0,99	18,97	1,08	18,96	1,16	18,96	1,24
20	19,97	1,05	19,97	1,13	19,96	1,22	19,96	1,31
21	20,97	1,10	20,97	1,19	20,96	1,28	20,96	1,37
22	21,97	1,15	21,97	1,25	21,96	1,34	21,95	1,44
23	22,97	1,20	22,96	1,30	22,96	1,40	22,95	1,50
24	23,97	1,26	23,96	1,36	23,96	1,47	23,95	1,57
25	24,97	1,31	24,96	1,42	24,95	1,53	24,95	1,64
26	25,97	1,36	25,96	1,47	25,95	1,59	25,94	1,70
27	26,96	1,41	26,96	1,53	26,95	1,65	26,94	1,77
28	27,96	1,47	27,96	1,59	27,95	1,71	27,94	1,83
29	28,96	1,52	28,95	1,64	28,95	1,77	28,94	1,90
30	29,96	1,57	29,95	1,70	29,94	1,83	29,94	1,96
31	30,96	1,62	30,95	1,76	30,94	1,89	30,93	2,03
32	31,96	1,68	31,95	1,81	31,94	1,95	31,93	2,09
33	32,96	1,73	32,95	1,87	32,94	2,02	32,93	2,16
34	33,96	1,78	33,95	1,93	33,94	2,08	33,93	2,22
35	34,95	1,83	34,94	1,99	34,94	2,14	34,92	2,29
36	35,95	1,88	35,94	2,04	35,93	2,20	35,92	2,35
37	36,95	1,94	36,94	2,10	36,93	2,26	36,92	2,42
38	37,95	1,99	37,94	2,16	37,93	2,32	37,92	2,49
39	38,95	2,04	38,94	2,21	38,93	2,38	38,92	2,55
40	39,95	2,09	39,94	2,27	39,93	2,44	39,91	2,62
41	40,94	2,15	40,93	2,33	40,92	2,50	40,91	2,68
42	41,94	2,20	41,93	2,38	41,92	2,56	41,91	2,75
43	42,94	2,25	42,93	2,44	42,92	2,63	42,91	2,81
44	43,94	2,30	43,93	2,50	43,92	2,69	43,91	2,88
45	44,94	2,36	44,93	2,55	44,92	2,75	44,90	2,94
46	45,94	2,41	45,93	2,61	45,91	2,81	45,90	3,00
47	46,94	2,47	46,93	2,67	46,91	2,87	46,90	3,07
48	47,94	2,51	47,92	2,72	47,91	2,93	47,90	3,14
49	48,93	2,57	48,92	2,78	48,91	2,99	48,90	3,21
50	49,93	2,62	49,92	2,84	49,91	3,05	49,89	3,27
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	87 Deg.		86 Degrees					

TRAVERSE TABLE.

8

Distance	3 Degrees											
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,93	2,67	50,92	2,89	50,90	3,11	50,89	3,34	50,89	3,34	50,89	3,34
52	51,93	2,72	51,92	2,95	51,90	3,18	51,89	3,40	51,89	3,40	51,89	3,40
53	52,93	2,77	52,92	3,01	52,90	3,24	52,89	3,47	52,89	3,47	52,89	3,47
54	53,93	2,83	53,91	3,06	53,90	3,30	53,88	3,53	53,88	3,53	53,88	3,53
55	54,92	2,88	54,91	3,12	54,90	3,36	54,88	3,60	54,88	3,60	54,88	3,60
56	55,92	2,93	55,91	3,18	55,90	3,42	55,88	3,66	55,88	3,66	55,88	3,66
57	56,92	2,98	56,91	3,23	56,89	3,48	56,88	3,73	56,88	3,73	56,88	3,73
58	57,92	3,04	57,91	3,29	57,89	3,54	57,88	3,79	57,88	3,79	57,88	3,79
59	58,92	3,09	58,91	3,35	58,89	3,60	58,87	3,85	58,87	3,85	58,87	3,85
60	59,92	3,14	59,90	3,40	59,89	3,66	59,87	3,92	59,87	3,92	59,87	3,92
61	60,92	3,19	60,90	3,46	60,89	3,72	60,87	3,99	60,87	3,99	60,87	3,99
62	61,92	3,25	61,90	3,51	61,88	3,79	61,87	4,06	61,87	4,06	61,87	4,06
63	62,92	3,30	62,90	3,57	62,88	3,85	62,87	4,12	62,87	4,12	62,87	4,12
64	63,91	3,35	63,90	3,63	63,88	3,91	63,86	4,19	63,86	4,19	63,86	4,19
65	64,91	3,40	64,90	3,69	64,88	3,97	64,86	4,25	64,86	4,25	64,86	4,25
66	65,91	3,45	65,89	3,74	65,88	4,03	65,86	4,32	65,86	4,32	65,86	4,32
67	66,91	3,51	66,89	3,80	66,88	4,09	66,86	4,38	66,86	4,38	66,86	4,38
68	67,91	3,56	67,89	3,86	67,87	4,16	67,86	4,45	67,86	4,45	67,86	4,45
69	68,91	3,61	68,89	3,91	68,87	4,22	68,85	4,51	68,85	4,51	68,85	4,51
70	69,91	3,66	69,89	3,97	69,87	4,28	69,85	4,58	69,85	4,58	69,85	4,58
71	70,90	3,72	70,89	4,03	70,87	4,34	70,85	4,64	70,85	4,64	70,85	4,64
72	71,90	3,77	71,88	4,08	71,87	4,40	71,85	4,71	71,85	4,71	71,85	4,71
73	72,90	3,82	72,88	4,14	72,86	4,46	72,84	4,77	72,84	4,77	72,84	4,77
74	73,90	3,87	73,88	4,20	73,86	4,52	73,84	4,84	73,84	4,84	73,84	4,84
75	74,90	3,93	74,88	4,25	74,86	4,58	74,84	4,91	74,84	4,91	74,84	4,91
76	75,90	3,98	75,88	4,31	75,86	4,64	75,84	4,97	75,84	4,97	75,84	4,97
77	76,90	4,03	76,88	4,37	76,86	4,70	76,84	5,04	76,84	5,04	76,84	5,04
78	77,89	4,08	77,87	4,42	77,85	4,76	77,83	5,10	77,83	5,10	77,83	5,10
79	78,89	4,14	78,87	4,48	78,85	4,82	78,83	5,17	78,83	5,17	78,83	5,17
80	79,89	4,19	79,87	4,54	79,85	4,88	79,83	5,23	79,83	5,23	79,83	5,23
81	80,89	4,24	80,87	4,59	80,85	4,95	80,83	5,30	80,83	5,30	80,83	5,30
82	81,89	4,29	81,87	4,65	81,85	5,01	81,83	5,36	81,83	5,36	81,83	5,36
83	82,89	4,34	82,87	4,71	82,84	5,07	82,82	5,43	82,82	5,43	82,82	5,43
84	83,89	4,40	83,87	4,76	83,84	5,13	83,82	5,49	83,82	5,49	83,82	5,49
85	84,88	4,45	84,86	4,82	84,84	5,19	84,82	5,56	84,82	5,56	84,82	5,56
86	85,88	4,50	85,86	4,88	85,84	5,25	85,82	5,62	85,82	5,62	85,82	5,62
87	86,88	4,55	86,86	4,93	86,84	5,31	86,81	5,69	86,81	5,69	86,81	5,69
88	87,88	4,61	87,86	4,99	87,84	5,37	87,81	5,76	87,81	5,76	87,81	5,76
89	88,88	4,66	88,86	5,05	88,83	5,43	88,81	5,82	88,81	5,82	88,81	5,82
90	89,88	4,71	89,86	5,10	89,83	5,50	89,81	5,89	89,81	5,89	89,81	5,89
91	90,88	4,76	90,85	5,17	90,83	5,56	90,81	5,95	90,81	5,95	90,81	5,95
92	91,87	4,82	91,85	5,22	91,83	5,62	91,80	6,02	91,80	6,02	91,80	6,02
93	92,87	4,87	92,85	5,27	92,83	5,68	92,80	6,08	92,80	6,08	92,80	6,08
94	93,87	4,92	93,85	5,33	93,83	5,74	93,80	6,15	93,80	6,15	93,80	6,15
95	94,87	4,97	94,85	5,39	94,82	5,80	94,80	6,21	94,80	6,21	94,80	6,21
96	95,87	5,03	95,85	5,44	95,82	5,86	95,79	6,28	95,79	6,28	95,79	6,28
97	96,87	5,08	96,84	5,50	96,82	5,92	96,79	6,34	96,79	6,34	96,79	6,34
98	97,87	5,13	97,84	5,55	97,82	5,98	97,79	6,41	97,79	6,41	97,79	6,41
99	98,87	5,18	98,84	5,61	98,82	6,04	98,79	6,48	98,79	6,48	98,79	6,48
100	99,86	5,23	99,84	5,67	99,81	6,11	99,79	6,54	99,79	6,54	99,79	6,54
Distance	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
87 Deg.	87	87	86	86	86	86	86	86	86	86	86	86

TRAVERSE TABLE.

Distance.	4 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	1,00	0,07	1,00	0,07	1,00	0,07	1,00	0,08
2	2,00	0,14	2,00	0,15	1,99	0,16	1,99	0,17
3	2,99	0,21	2,99	0,22	2,99	0,24	2,99	0,25
4	3,99	0,28	3,99	0,30	3,99	0,31	3,99	0,33
5	4,99	0,35	4,99	0,37	4,99	0,39	4,98	0,41
6	5,99	0,42	5,98	0,45	5,98	0,47	5,98	0,49
7	6,98	0,49	6,98	0,52	6,98	0,55	6,98	0,58
8	7,98	0,56	7,98	0,59	7,98	0,63	7,97	0,66
9	8,98	0,63	8,98	0,67	8,97	0,71	8,97	0,75
10	9,98	0,70	9,97	0,74	9,97	0,79	9,97	0,83
11	10,97	0,77	10,97	0,82	10,97	0,86	10,96	0,91
12	11,97	0,84	11,97	0,89	11,96	0,94	11,96	0,99
13	12,97	0,91	12,97	0,96	12,96	1,02	12,96	1,08
14	13,97	0,98	13,96	1,04	13,96	1,10	13,95	1,16
15	14,96	1,05	14,96	1,11	14,95	1,18	14,95	1,24
16	15,96	1,12	15,96	1,19	15,95	1,26	15,95	1,33
17	16,96	1,19	16,95	1,26	16,95	1,33	16,94	1,41
18	17,96	1,26	17,95	1,33	17,94	1,41	17,94	1,49
19	18,95	1,33	18,95	1,40	18,94	1,49	18,93	1,57
20	19,95	1,40	19,95	1,48	19,94	1,57	19,93	1,66
21	20,95	1,47	20,94	1,56	20,94	1,65	20,93	1,74
22	21,95	1,54	21,94	1,63	21,93	1,73	21,93	1,82
23	22,94	1,60	22,94	1,70	22,93	1,80	22,92	1,90
24	23,94	1,67	23,93	1,78	23,93	1,88	23,92	1,99
25	24,94	1,74	24,93	1,85	24,92	1,96	24,91	2,07
26	25,94	1,81	25,93	1,93	25,92	2,04	25,91	2,15
27	26,93	1,88	26,93	2,00	26,92	2,12	26,91	2,24
28	27,93	1,95	27,92	2,08	27,91	2,20	27,90	2,32
29	28,93	2,02	28,92	2,15	28,91	2,28	28,90	2,40
30	29,93	2,09	29,92	2,22	29,91	2,35	29,90	2,48
31	30,93	2,16	30,92	2,30	30,91	2,43	30,89	2,57
32	31,92	2,23	31,91	2,37	31,90	2,51	31,89	2,65
33	32,92	2,30	32,91	2,45	32,90	2,59	32,89	2,73
34	33,92	2,37	33,91	2,52	33,90	2,67	33,88	2,82
35	34,92	2,44	34,90	2,59	34,89	2,75	34,88	2,90
36	35,91	2,51	35,90	2,67	35,89	2,83	35,88	2,98
37	36,91	2,58	36,90	2,74	36,89	2,90	36,87	3,06
38	37,91	2,65	37,90	2,85	37,88	2,98	37,87	3,15
39	38,91	2,72	38,89	2,89	38,88	3,06	38,87	3,23
40	39,90	2,79	39,89	2,96	39,88	3,14	39,86	3,31
41	40,90	2,86	40,89	3,04	40,87	3,22	40,86	3,40
42	41,90	2,93	41,89	3,11	41,87	3,30	41,86	3,48
43	42,90	3,00	42,88	3,19	42,87	3,37	42,85	3,56
44	43,89	3,07	43,88	3,26	43,87	3,45	43,85	3,64
45	44,89	3,14	44,88	3,34	44,86	3,53	44,85	3,73
46	45,89	3,21	45,87	3,41	45,86	3,61	45,84	3,81
47	46,89	3,28	46,87	3,48	46,86	3,69	46,84	3,89
48	47,88	3,35	47,87	3,56	47,85	3,77	47,84	3,97
49	48,88	3,42	48,87	3,63	48,85	3,84	48,83	4,06
50	49,88	3,49	49,86	3,71	49,85	3,92	49,83	4,14
Distance.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	86 Deg.		85 Degrees.					

TRAVERSE TABLE.

10

Distance.	4 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,88	3,56	50,86	3,78	50,84	4,09	50,83	4,22
52	51,87	3,63	51,86	3,85	51,84	4,08	51,82	4,31
53	52,87	3,70	52,86	3,93	52,84	4,16	52,82	4,39
54	53,87	3,77	53,85	4,00	53,83	4,24	53,82	4,47
55	54,87	3,84	54,85	4,08	54,83	4,32	54,81	4,56
56	55,86	3,91	55,85	4,15	55,83	4,39	55,81	4,66
57	56,86	3,98	56,84	4,23	56,82	4,47	56,81	4,72
58	57,86	4,05	57,84	4,30	57,82	4,55	57,80	4,80
59	58,86	4,12	58,84	4,35	58,82	4,63	58,80	4,89
60	59,85	4,19	59,84	4,45	59,82	4,71	59,79	4,97
61	60,85	4,26	60,83	4,52	60,81	4,79	60,79	5,05
62	61,85	4,33	61,83	4,60	61,81	4,87	61,79	5,14
63	62,85	4,40	62,83	4,67	62,81	4,94	62,78	5,22
64	63,84	4,47	63,82	4,74	63,80	5,02	63,78	5,30
65	64,84	4,54	64,82	4,81	64,80	5,10	64,78	5,38
66	65,84	4,61	65,82	4,89	65,80	5,18	65,77	5,47
67	66,84	4,67	66,82	4,97	66,79	5,26	66,77	5,55
68	67,83	4,74	67,81	5,04	67,79	5,34	67,77	5,63
69	68,83	4,81	68,81	5,11	68,79	5,41	68,76	5,71
70	69,83	4,88	69,81	5,19	69,78	5,49	69,76	5,80
71	70,83	4,95	70,81	5,26	70,78	5,57	70,76	5,88
72	71,82	5,02	71,80	5,34	71,78	5,65	71,75	5,96
73	72,82	5,09	72,80	5,41	72,78	5,73	72,75	6,04
74	73,82	5,16	73,80	5,48	73,77	5,81	73,75	6,13
75	74,82	5,23	74,79	5,56	74,77	5,88	74,74	6,21
76	75,81	5,30	75,79	5,63	75,77	5,96	75,74	6,29
77	76,81	5,37	76,79	5,71	76,76	6,04	76,74	6,38
78	77,81	5,44	77,79	5,78	77,76	6,12	77,73	6,46
79	78,81	5,51	78,78	5,86	78,76	6,20	78,73	6,54
80	79,81	5,58	79,78	5,93	79,75	6,28	79,73	6,63
81	80,80	5,65	80,78	6,00	80,75	6,36	80,72	6,71
82	81,80	5,72	81,78	6,08	81,75	6,43	81,72	6,79
83	82,80	5,79	82,77	6,15	82,75	6,51	82,72	6,87
84	83,80	5,86	83,77	6,23	83,74	6,59	83,71	6,96
85	84,79	5,93	84,77	6,30	84,74	6,67	84,71	7,04
86	85,79	6,01	85,76	6,37	85,74	6,75	85,71	7,12
87	86,79	6,07	86,76	6,45	86,73	6,83	86,70	7,21
88	87,79	6,14	87,76	6,52	87,73	6,91	87,70	7,29
89	88,78	6,21	88,76	6,60	88,73	6,98	88,70	7,37
90	89,78	6,28	89,75	6,67	89,72	7,06	89,69	7,45
91	90,78	6,35	90,75	6,74	90,72	7,14	90,69	7,54
92	91,78	6,42	91,75	6,82	91,72	7,22	91,68	7,62
93	92,77	6,49	92,75	6,89	92,71	7,30	92,68	7,70
94	93,77	6,56	93,74	6,97	93,71	7,38	93,68	7,78
95	94,77	6,63	94,74	7,04	94,71	7,45	94,67	7,87
96	95,77	6,70	95,74	7,12	95,71	7,53	95,67	7,95
97	96,76	6,77	96,73	7,19	96,70	7,61	96,67	8,03
98	97,76	6,84	97,73	7,26	97,70	7,69	97,66	8,12
99	98,76	6,91	98,73	7,34	98,70	7,77	98,66	8,20
100	99,76	6,98	99,73	7,41	99,69	7,85	99,66	8,28
Distance.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	86 Deg.		85 Degrees					

TRAVERSE TABLE.

Distance.	5 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	1,00	0,09	1,00	0,09	1,00	0,10	1,00	0,10
2	1,99	0,17	1,99	0,18	1,99	0,19	1,99	0,20
3	2,99	0,26	2,99	0,28	2,99	0,29	2,99	0,30
4	3,99	0,35	3,98	0,37	3,98	0,38	3,98	0,40
5	4,98	0,44	4,98	0,46	4,98	0,48	4,98	0,50
6	5,98	0,52	5,98	0,55	5,97	0,58	5,97	0,60
7	6,97	0,61	6,97	0,64	6,97	0,67	6,97	0,70
8	7,97	0,70	7,97	0,73	7,96	0,78	7,96	0,80
9	8,97	0,78	8,96	0,82	8,96	0,86	8,96	0,90
10	9,96	0,87	9,96	0,92	9,95	0,96	9,95	1,00
11	10,96	0,96	10,95	1,01	10,95	1,05	10,95	1,10
12	11,95	1,05	11,95	1,10	11,95	1,15	11,94	1,20
13	12,95	1,13	12,95	1,19	12,94	1,25	12,94	1,30
14	13,95	1,22	13,94	1,28	13,94	1,34	13,93	1,40
15	14,94	1,31	14,94	1,37	14,93	1,44	14,93	1,50
16	15,94	1,40	15,93	1,46	15,93	1,53	15,92	1,60
17	16,94	1,48	16,93	1,56	16,92	1,63	16,92	1,70
18	17,93	1,57	17,92	1,65	17,92	1,73	17,91	1,80
19	18,93	1,66	18,92	1,74	18,91	1,82	18,91	1,90
20	19,92	1,74	19,91	1,83	19,91	1,92	19,90	2,00
21	20,92	1,83	20,91	1,92	20,90	2,01	20,89	2,10
22	21,92	1,92	21,91	2,01	21,90	2,11	21,89	2,20
23	22,91	2,00	22,90	2,11	22,89	2,21	22,88	2,31
24	23,91	2,09	23,90	2,20	23,89	2,30	23,88	2,41
25	24,91	2,18	24,90	2,29	24,89	2,40	24,87	2,51
26	25,90	2,27	25,89	2,38	25,88	2,49	25,87	2,61
27	26,90	2,35	26,89	2,47	26,88	2,59	26,86	2,71
28	27,89	2,44	27,88	2,56	27,87	2,68	27,86	2,81
29	28,89	2,53	28,88	2,65	28,87	2,78	28,85	2,91
30	29,89	2,62	29,87	2,75	29,86	2,88	29,85	3,01
31	30,88	2,70	30,87	2,84	30,86	2,97	30,84	3,11
32	31,88	2,79	31,87	2,93	31,85	3,07	31,84	3,21
33	32,88	2,88	32,86	3,02	32,85	3,17	32,83	3,31
34	33,87	2,96	33,86	3,11	33,85	3,26	33,83	3,41
35	34,87	3,05	34,85	3,20	34,84	3,36	34,82	3,51
36	35,86	3,14	35,85	3,29	35,84	3,45	35,82	3,61
37	36,86	3,23	36,85	3,39	36,83	3,55	36,81	3,71
38	37,86	3,31	37,84	3,48	37,83	3,64	37,81	3,81
39	38,85	3,40	38,84	3,57	38,82	3,74	38,80	3,91
40	39,85	3,49	39,83	3,66	39,82	3,83	39,80	4,01
41	40,84	3,57	40,83	3,75	40,81	3,93	40,79	4,11
42	41,84	3,66	41,82	3,84	41,81	4,03	41,79	4,21
43	42,84	3,75	42,82	3,94	42,80	4,12	42,78	4,31
44	43,83	3,84	43,82	4,03	43,80	4,22	43,78	4,41
45	44,83	3,92	44,81	4,12	44,79	4,31	44,77	4,51
46	45,82	4,01	45,81	4,21	45,79	4,41	45,77	4,61
47	46,82	4,10	46,80	4,30	46,78	4,51	46,76	4,71
48	47,82	4,18	47,80	4,39	47,78	4,60	47,76	4,81
49	48,81	4,27	48,79	4,48	48,78	4,70	48,75	4,91
50	49,81	4,36	49,79	4,58	49,77	4,79	49,75	5,01
Distance.	84 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.

TRAVERSE TABLE.

12

Distance	5 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,81	4,45	50,79	4,67	50,77	4,89	50,74	5,11
52	51,80	4,55	51,78	4,76	51,76	4,99	51,74	5,21
53	52,80	4,62	52,78	4,85	52,76	5,08	52,73	5,31
54	53,80	4,71	53,77	4,94	53,75	5,18	53,73	5,41
55	54,79	4,79	54,77	5,03	54,75	5,27	54,72	5,51
56	55,79	4,88	55,77	5,12	55,74	5,37	55,72	5,61
57	56,78	4,97	56,76	5,22	56,74	5,46	56,71	5,71
58	57,78	5,06	57,76	5,31	57,73	5,56	57,71	5,81
59	58,78	5,15	58,75	5,40	58,73	5,66	58,70	5,91
60	59,77	5,23	59,75	5,49	59,72	5,75	59,70	6,01
61	60,77	5,32	60,74	5,58	60,72	5,85	60,69	6,11
62	61,76	5,40	61,74	5,67	61,72	5,94	61,69	6,21
63	62,76	5,49	62,74	5,77	62,71	6,04	62,68	6,31
64	63,76	5,58	63,73	5,86	63,71	6,13	63,68	6,41
65	64,75	5,67	64,73	5,95	64,70	6,23	64,67	6,51
66	65,75	5,75	65,72	6,04	65,70	6,33	65,67	6,61
67	66,74	5,84	66,72	6,13	66,69	6,42	66,66	6,71
68	67,74	5,93	67,71	6,22	67,69	6,52	67,66	6,81
69	68,74	6,02	68,71	6,31	68,68	6,61	68,65	6,91
70	69,73	6,10	69,71	6,41	69,68	6,71	69,65	7,01
71	70,73	6,19	70,70	6,50	70,67	6,81	70,64	7,11
72	71,73	6,28	71,70	6,59	71,67	6,90	71,64	7,21
73	72,72	6,36	72,69	6,68	72,66	7,00	72,63	7,31
74	73,72	6,45	73,69	6,77	73,66	7,09	73,63	7,41
75	74,71	6,54	74,69	6,86	74,66	7,19	74,62	7,51
76	75,71	6,62	75,68	6,95	75,65	7,29	75,61	7,61
77	76,71	6,71	76,68	7,05	76,65	7,38	76,61	7,71
78	77,70	6,80	77,67	7,14	77,64	7,48	77,61	7,81
79	78,70	6,89	78,67	7,23	78,64	7,57	78,60	7,91
80	79,70	6,97	79,66	7,32	79,63	7,67	79,60	8,01
81	80,69	7,06	80,66	7,41	80,63	7,76	80,59	8,11
82	81,69	7,15	81,66	7,50	81,62	7,86	81,59	8,21
83	82,68	7,24	82,65	7,60	82,62	7,96	82,58	8,31
84	83,68	7,32	83,65	7,69	83,61	8,05	83,58	8,41
85	84,68	7,41	84,64	7,78	84,61	8,15	84,57	8,51
86	85,67	7,50	85,64	7,87	85,61	8,24	85,57	8,61
87	86,67	7,58	86,63	7,96	86,60	8,34	86,56	8,71
88	87,67	7,67	87,63	8,05	87,60	8,44	87,56	8,81
89	88,66	7,76	88,63	8,14	88,59	8,53	88,55	8,91
90	89,66	7,84	89,62	8,24	89,59	8,63	89,55	9,01
91	90,65	7,93	90,62	8,33	90,58	8,72	90,54	9,11
92	91,65	8,02	91,61	8,42	91,58	8,82	91,54	9,21
93	92,65	8,11	92,61	8,51	92,57	8,92	92,53	9,31
94	93,64	8,19	93,61	8,60	93,57	9,01	93,53	9,41
95	94,64	8,28	94,60	8,69	94,56	9,11	94,52	9,51
96	95,63	8,37	95,60	8,78	95,56	9,20	95,52	9,61
97	96,63	8,45	96,59	8,88	96,55	9,30	96,51	9,71
98	97,63	8,54	97,59	8,97	97,55	9,39	97,51	9,81
99	98,62	8,63	98,59	9,06	98,55	9,49	98,50	9,91
100	99,62	8,72	99,58	9,15	99,54	9,59	99,50	10,01
Distance	Dep.		Lat.		Dep.		Lat.	
	Dep.		Lat.		Dep.		Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	85 Deg.		84 Degrees					

TRAVERSE TABLE.

Distance	6 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	1,00	0,11	1,00	0,11	0,99	0,11	0,99	0,12
2	1,99	0,21	1,99	0,22	1,99	0,23	1,99	0,24
3	2,99	0,32	2,98	0,33	2,98	0,34	2,98	0,35
4	3,98	0,41	3,98	0,44	3,97	0,45	3,97	0,47
5	4,97	0,52	4,97	0,54	4,97	0,57	4,97	0,59
6	5,97	0,63	5,96	0,65	5,96	0,68	5,96	0,71
7	6,96	0,73	6,96	0,76	6,96	0,79	6,95	0,82
8	7,96	0,84	7,95	0,87	7,95	0,91	7,95	0,94
9	8,95	0,94	8,95	0,98	8,94	1,02	8,94	1,06
10	9,95	1,05	9,94	1,09	9,94	1,13	9,93	1,18
11	10,94	1,15	10,94	1,20	10,93	1,25	10,92	1,29
12	11,93	1,25	11,93	1,31	11,92	1,36	11,92	1,41
13	12,93	1,36	12,92	1,42	12,92	1,47	12,91	1,53
14	13,92	1,46	13,92	1,52	13,91	1,59	13,90	1,65
15	14,92	1,57	14,91	1,63	14,90	1,70	14,90	1,76
16	15,91	1,67	15,91	1,74	15,90	1,81	15,89	1,88
17	16,91	1,78	16,90	1,85	16,89	1,92	16,88	2,00
18	17,90	1,88	17,89	1,96	17,88	2,04	17,88	2,12
19	18,90	1,98	18,89	2,07	18,88	2,15	18,87	2,23
20	19,89	2,09	19,88	2,18	19,87	2,26	19,86	2,35
21	20,89	2,20	20,88	2,29	20,86	2,38	20,85	2,47
22	21,88	2,30	21,87	2,39	21,86	2,49	21,85	2,59
23	22,87	2,41	22,86	2,50	22,85	2,60	22,84	2,70
24	23,87	2,51	23,86	2,61	23,85	2,72	23,83	2,82
25	24,86	2,61	24,85	2,72	24,84	2,83	24,83	2,94
26	25,86	2,72	25,85	2,83	25,83	2,94	25,82	3,06
27	26,85	2,82	26,84	2,94	26,83	3,06	26,81	3,17
28	27,85	2,93	27,83	3,05	27,82	3,17	27,81	3,29
29	28,84	3,03	28,83	3,16	28,81	3,28	28,80	3,41
30	29,84	3,14	29,82	3,27	29,81	3,40	29,79	3,53
31	30,83	3,24	30,82	3,38	30,80	3,51	30,79	3,64
32	31,83	3,35	31,81	3,48	31,79	3,62	31,78	3,76
33	32,82	3,45	32,80	3,59	32,79	3,74	32,78	3,81
34	33,81	3,56	33,80	3,70	33,78	3,85	33,77	4,00
35	34,81	3,66	34,79	3,81	34,78	3,96	34,76	4,11
36	35,80	3,76	35,79	3,92	35,77	4,08	35,75	4,23
37	36,80	3,87	36,78	4,03	36,76	4,19	36,75	4,35
38	37,79	3,97	37,77	4,14	37,76	4,30	37,74	4,47
39	38,79	4,08	38,77	4,24	38,75	4,42	38,73	4,58
40	39,78	4,18	39,76	4,36	39,74	4,53	39,72	4,70
41	40,78	4,29	40,76	4,46	40,74	4,64	40,72	4,82
42	41,77	4,39	41,75	4,57	41,73	4,76	41,71	4,94
43	42,77	4,49	42,74	4,68	42,72	4,87	42,70	5,06
44	43,76	4,60	43,74	4,79	43,72	4,98	43,70	5,17
45	44,75	4,70	44,73	4,90	44,71	5,10	44,69	5,29
46	45,75	4,81	45,73	5,01	45,71	5,21	45,68	5,41
47	46,74	4,91	46,72	5,12	46,70	5,32	46,68	5,52
48	47,74	5,02	47,71	5,23	47,69	5,43	47,67	5,64
49	48,73	5,12	48,71	5,34	48,69	5,55	48,66	5,76
50	49,73	5,23	49,70	5,44	49,68	5,66	49,65	5,88
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	84 Deg.		83 Degrees					

TRAVERSE TABLE.

14

Distance	6 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,72	5,33	50,70	5,55	50,67	5,77	50,65	6,00
52	51,72	5,44	51,69	5,66	51,67	5,89	51,64	6,11
53	52,71	5,54	52,69	5,77	52,66	6,00	52,63	6,23
54	53,70	5,65	53,68	5,88	53,65	6,11	53,63	6,35
55	54,70	5,75	54,67	5,99	54,65	6,23	54,62	6,47
56	55,69	5,85	55,67	6,10	55,64	6,34	55,61	6,58
57	56,69	5,96	56,66	6,21	56,63	6,45	56,61	6,70
58	57,68	6,06	57,66	6,31	57,63	6,57	57,60	6,82
59	58,68	6,17	58,65	6,42	58,62	6,68	58,59	6,94
60	59,67	6,27	59,64	6,53	59,61	6,79	59,58	7,05
61	60,67	6,38	60,64	6,64	60,61	6,91	60,58	7,17
62	61,66	6,48	61,63	6,78	61,60	7,02	61,57	7,29
63	62,66	6,59	62,63	6,86	62,60	7,13	62,56	7,41
64	63,65	6,69	63,62	6,97	63,59	7,24	63,56	7,52
65	64,64	6,80	64,61	7,08	64,58	7,36	64,55	7,64
66	65,64	6,90	65,61	7,19	65,58	7,47	65,55	7,76
67	66,63	7,01	66,60	7,29	66,57	7,58	66,54	7,88
68	67,63	7,11	67,60	7,40	67,56	7,70	67,53	7,99
69	68,62	7,21	68,59	7,51	68,56	7,81	68,52	8,11
70	69,62	7,32	69,58	7,62	69,55	7,92	69,52	8,23
71	70,61	7,42	70,58	7,73	70,54	8,04	70,51	8,35
72	71,61	7,53	71,57	7,84	71,54	8,15	71,50	8,46
73	72,60	7,63	72,57	7,95	72,53	8,26	72,49	8,58
74	73,59	7,74	73,56	8,06	73,52	8,38	73,49	8,70
75	74,59	7,84	74,56	8,17	74,52	8,49	74,48	8,82
76	75,58	7,94	75,55	8,27	75,51	8,60	75,47	8,93
77	76,58	8,05	76,54	8,38	76,51	8,72	76,47	9,05
78	77,57	8,15	77,54	8,49	77,49	8,83	77,46	9,17
79	78,57	8,26	78,53	8,61	78,49	8,94	78,45	9,29
80	79,56	8,36	79,53	8,71	79,49	9,06	79,45	9,40
81	80,56	8,47	80,52	8,82	80,48	9,17	80,44	9,52
82	81,55	8,57	81,51	8,93	81,47	9,28	81,43	9,64
83	82,55	8,68	82,51	9,04	82,47	9,40	82,43	9,76
84	83,54	8,78	83,50	9,15	83,46	9,51	83,42	9,87
85	84,53	8,88	84,50	9,25	84,45	9,62	84,41	9,99
86	85,53	8,99	85,49	9,36	85,45	9,73	85,40	10,11
87	86,52	9,09	86,48	9,47	86,44	9,85	86,40	10,23
88	87,52	9,20	87,48	9,58	87,43	9,96	87,39	10,34
89	88,51	9,30	88,47	9,69	88,43	10,07	88,38	10,46
90	89,51	9,41	89,47	9,80	89,42	10,19	89,38	10,58
91	90,50	9,51	90,46	9,91	90,41	10,30	90,37	10,70
92	91,50	9,62	91,45	10,02	91,41	10,41	91,36	10,81
93	92,49	9,72	92,45	10,13	92,40	10,53	92,36	10,93
94	93,49	9,83	93,44	10,23	93,40	10,64	93,35	11,05
95	94,48	9,93	94,44	10,34	94,39	10,75	94,34	11,17
96	95,47	10,04	95,43	10,45	95,38	10,87	95,34	11,28
97	96,47	10,14	96,42	10,56	96,38	10,98	96,33	11,40
98	97,46	10,24	97,42	10,67	97,37	11,09	97,32	11,52
99	98,46	10,35	98,41	10,78	98,36	11,21	98,31	11,64
100	99,45	10,45	99,41	10,89	99,36	11,32	99,31	11,75
Distance	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	84 Deg.				84 Degrees			

TRAVERSE TABLE.

Distance	7 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
1	0,99	0,12	0,99	0,13	0,99	0,13	0,99	0,14
2	1,99	0,24	1,98	0,25	1,98	0,26	1,98	0,27
3	2,98	0,37	2,98	0,38	2,98	0,39	2,97	0,41
4	3,97	0,49	3,97	0,51	3,97	0,52	3,96	0,54
5	4,97	0,61	4,96	0,63	4,96	0,65	4,95	0,67
6	5,96	0,73	5,95	0,76	5,95	0,78	5,95	0,81
7	6,95	0,85	6,94	0,88	6,94	0,91	6,94	0,94
8	7,94	0,98	7,94	1,01	7,94	1,04	7,93	1,08
9	8,93	1,10	8,93	1,14	8,93	1,18	8,92	1,21
10	9,93	1,22	9,92	1,26	9,92	1,31	9,91	1,35
11	10,92	1,34	10,91	1,39	10,91	1,44	10,90	1,48
12	11,91	1,46	11,90	1,51	11,90	1,57	11,89	1,62
13	12,90	1,58	12,90	1,64	12,90	1,70	12,88	1,75
14	13,90	1,71	13,89	1,77	13,89	1,83	13,87	1,89
15	14,89	1,83	14,88	1,89	14,88	1,96	14,86	2,02
16	15,88	1,95	15,87	2,02	15,87	2,09	15,85	2,16
17	16,87	2,07	16,86	2,15	16,86	2,22	16,84	2,29
18	17,87	2,19	17,86	2,27	17,86	2,35	17,83	2,43
19	18,86	2,32	18,85	2,40	18,85	2,48	18,83	2,56
20	19,85	2,44	19,84	2,52	19,84	2,61	19,82	2,70
21	20,84	2,56	20,83	2,65	20,83	2,74	20,81	2,83
22	21,84	2,68	21,82	2,77	21,82	2,87	21,80	2,97
23	22,83	2,80	22,82	2,90	22,82	3,00	22,79	3,10
24	23,82	2,93	23,81	3,03	23,81	3,13	23,78	3,24
25	24,82	3,05	24,80	3,16	24,80	3,27	24,77	3,37
26	25,81	3,17	25,79	3,28	25,79	3,40	25,76	3,51
27	26,80	3,29	26,78	3,41	26,78	3,53	26,75	3,64
28	27,79	3,41	27,78	3,53	27,78	3,66	27,74	3,78
29	28,79	3,53	28,77	3,66	28,77	3,79	28,73	3,91
30	29,78	3,66	29,76	3,79	29,76	3,92	29,73	4,05
31	30,77	3,78	30,75	3,91	30,75	4,05	30,72	4,18
32	31,76	3,90	31,74	4,04	31,74	4,18	31,71	4,32
33	32,76	4,02	32,74	4,17	32,74	4,31	32,70	4,45
34	33,75	4,14	33,73	4,29	33,73	4,44	33,69	4,59
35	34,74	4,27	34,72	4,42	34,72	4,57	34,68	4,71
36	35,73	4,39	35,71	4,54	35,71	4,70	35,67	4,86
37	36,73	4,51	36,70	4,67	36,70	4,83	36,66	4,99
38	37,72	4,63	37,70	4,80	37,70	4,96	37,65	5,13
39	38,71	4,75	38,69	4,92	38,69	5,09	38,64	5,26
40	39,70	4,88	39,68	5,05	39,68	5,22	39,64	5,39
41	40,70	5,00	40,67	5,17	40,67	5,35	40,63	5,53
42	41,69	5,12	41,66	5,30	41,66	5,48	41,62	5,66
43	42,68	5,24	42,66	5,43	42,65	5,61	42,61	5,80
44	43,67	5,36	43,65	5,55	43,65	5,74	43,60	5,93
45	44,67	5,48	44,64	5,68	44,64	5,87	44,59	6,07
46	45,66	5,61	45,63	5,81	45,63	6,00	45,58	6,20
47	46,65	5,73	46,62	5,93	46,62	6,14	46,57	6,34
48	47,64	5,85	47,62	6,06	47,62	6,27	47,56	6,47
49	48,64	5,97	48,61	6,18	48,61	6,40	48,55	6,61
50	49,63	6,09	49,60	6,31	49,60	6,53	49,54	6,74
Distance	83 Deg.		82 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

16

Distance	7 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,62	6,22	50,59	6,44	50,56	6,66	50,54	6,88
52	51,61	6,34	51,58	6,56	51,56	6,79	51,53	7,01
53	52,61	6,46	52,58	6,69	52,55	6,92	52,52	7,15
54	53,60	6,58	53,57	6,82	53,54	7,05	53,51	7,28
55	54,59	6,70	54,56	6,94	54,53	7,18	54,50	7,42
56	55,58	6,83	55,55	7,07	55,52	7,31	55,49	7,55
57	56,58	6,95	56,54	7,19	56,51	7,44	56,48	7,69
58	57,57	7,07	57,54	7,32	57,50	7,57	57,47	7,82
59	58,56	7,19	58,53	7,45	58,50	7,70	58,46	7,96
60	59,55	7,31	59,52	7,57	59,49	7,83	59,45	8,09
61	60,55	7,43	60,51	7,70	60,48	7,96	60,44	8,23
62	61,54	7,56	61,50	7,82	61,47	8,09	61,43	8,36
63	62,53	7,68	62,50	7,95	62,46	8,22	62,42	8,50
64	63,52	7,80	63,49	8,08	63,45	8,35	63,42	8,63
65	64,52	7,92	64,48	8,20	64,44	8,48	64,41	8,77
66	65,51	8,04	65,47	8,33	65,44	8,61	65,40	8,90
67	66,50	8,17	66,46	8,45	66,43	8,75	66,39	9,04
68	67,49	8,29	67,46	8,58	67,42	8,88	67,38	9,17
69	68,49	8,41	68,45	8,71	68,41	9,01	68,37	9,31
70	69,48	8,53	69,44	8,83	69,40	9,14	69,36	9,44
71	70,47	8,65	70,43	8,96	70,39	9,27	70,35	9,58
72	71,46	8,77	71,42	9,09	71,38	9,40	71,34	9,71
73	72,46	8,90	72,42	9,21	72,37	9,53	72,33	9,84
74	73,45	9,02	73,41	9,34	73,37	9,66	73,32	9,98
75	74,44	9,14	74,40	9,46	74,36	9,79	74,32	10,11
76	75,44	9,26	75,39	9,59	75,35	9,92	75,31	10,25
77	76,43	9,38	76,38	9,72	76,34	10,05	76,30	10,38
78	77,42	9,51	77,38	9,84	77,33	10,18	77,29	10,52
79	78,41	9,63	78,37	9,97	78,32	10,31	78,28	10,65
80	79,40	9,75	79,36	10,09	79,32	10,44	79,27	10,79
81	80,39	9,87	80,35	10,22	80,31	10,57	80,26	10,92
82	81,38	9,99	81,34	10,35	81,30	10,70	81,25	11,06
83	82,38	10,12	82,34	10,48	82,29	10,83	82,24	11,19
84	83,37	10,24	83,33	10,60	83,28	10,96	83,23	11,33
85	84,37	10,36	84,32	10,73	84,27	11,10	84,22	11,46
86	85,36	10,48	85,31	10,85	85,26	11,23	85,22	11,60
87	86,35	10,60	86,30	10,98	86,26	11,36	86,21	11,73
88	87,34	10,73	87,30	11,11	87,25	11,49	87,20	11,87
89	88,34	10,85	88,29	11,23	88,24	11,62	88,19	12,00
90	89,33	10,97	89,28	11,36	89,23	11,75	89,18	12,14
91	90,32	11,09	90,27	11,49	90,22	11,88	90,17	12,27
92	91,31	11,21	91,26	11,61	91,21	12,01	91,16	12,41
93	92,31	11,33	92,26	11,74	92,20	12,14	92,15	12,54
94	93,30	11,46	93,25	11,86	93,20	12,27	93,14	12,68
95	94,29	11,58	94,24	11,99	94,19	12,40	94,13	12,81
96	95,29	11,70	95,23	12,12	95,18	12,53	95,12	12,95
97	96,28	11,82	96,22	12,24	96,17	12,66	96,11	13,08
98	97,27	11,94	97,22	12,37	97,16	12,79	97,11	13,22
99	98,26	12,07	98,21	12,49	98,15	12,92	98,10	13,35
100	99,26	12,19	99,20	12,62	99,14	13,05	99,09	13,49
Distance	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	83 Deg.				82 Degrees			

TRAVERSE TABLE.

Distance.	8 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,99	0,14	0,99	0,14	0,99	0,15	0,99	0,15
2	1,98	0,28	1,98	0,29	1,98	0,30	1,98	0,30
3	2,97	0,42	2,97	0,43	2,97	0,44	2,97	0,46
4	3,96	0,56	3,96	0,57	3,96	0,59	3,95	0,61
5	4,95	0,70	4,95	0,72	4,95	0,74	4,94	0,76
6	5,94	0,84	5,94	0,86	5,93	0,88	5,93	0,91
7	6,93	0,97	6,93	1,00	6,92	1,04	6,92	1,07
8	7,92	1,11	7,92	1,15	7,91	1,18	7,91	1,22
9	8,91	1,25	8,91	1,29	8,90	1,33	8,90	1,37
10	9,90	1,39	9,90	1,44	9,89	1,48	9,88	1,52
11	10,90	1,53	10,89	1,58	10,88	1,63	10,87	1,67
12	11,89	1,67	11,88	1,72	11,87	1,77	11,86	1,83
13	12,88	1,81	12,87	1,87	12,86	1,92	12,85	1,98
14	13,87	1,95	13,86	2,01	13,85	2,07	13,84	2,13
15	14,86	2,09	14,85	2,15	14,84	2,22	14,83	2,28
16	15,84	2,23	15,84	2,30	15,82	2,37	15,81	2,43
17	16,83	2,37	16,83	2,44	16,81	2,51	16,80	2,59
18	17,82	2,51	17,81	2,58	17,80	2,66	17,79	2,74
19	18,81	2,64	18,80	2,73	18,79	2,81	18,78	2,89
20	19,81	2,78	19,79	2,87	19,78	2,96	19,77	3,04
21	20,79	2,92	20,78	3,01	20,77	3,10	20,76	3,19
22	21,78	3,06	21,77	3,16	21,76	3,25	21,74	3,35
23	22,77	3,21	22,76	3,30	22,75	3,40	22,73	3,50
24	23,76	3,34	23,75	3,44	23,74	3,55	23,72	3,65
25	24,75	3,48	24,74	3,59	24,73	3,70	24,71	3,80
26	25,74	3,62	25,73	3,73	25,71	3,84	25,70	3,95
27	26,73	3,76	26,72	3,87	26,70	3,99	26,69	4,11
28	27,72	3,90	27,71	4,02	27,69	4,14	27,67	4,26
29	28,71	4,04	28,70	4,16	28,68	4,29	28,66	4,41
30	29,71	4,18	29,69	4,31	29,67	4,43	29,65	4,56
31	30,70	4,31	30,68	4,45	30,66	4,58	30,64	4,72
32	31,69	4,45	31,67	4,59	31,65	4,73	31,63	4,87
33	32,68	4,59	32,66	4,74	32,64	4,88	32,62	5,02
34	33,67	4,73	33,65	4,88	33,63	5,03	33,61	5,17
35	34,66	4,87	34,64	5,02	34,62	5,17	34,59	5,33
36	35,65	5,01	35,63	5,17	35,61	5,32	35,58	5,48
37	36,64	5,15	36,62	5,31	36,59	5,47	36,57	5,63
38	37,63	5,29	37,61	5,45	37,58	5,62	37,56	5,78
39	38,62	5,43	38,60	5,60	38,57	5,76	38,55	5,93
40	39,61	5,57	39,59	5,74	39,56	5,91	39,53	6,09
41	40,60	5,71	40,58	5,88	40,55	6,06	40,52	6,24
42	41,59	5,85	41,57	6,03	41,54	6,21	41,51	6,39
43	42,58	5,99	42,56	6,17	42,53	6,36	42,50	6,54
44	43,57	6,12	43,55	6,31	43,52	6,50	43,49	6,69
45	44,56	6,26	44,54	6,46	44,51	6,60	44,48	6,85
46	45,55	6,40	45,52	6,60	45,50	6,80	45,46	7,00
47	46,54	6,54	46,51	6,74	46,48	6,95	46,45	7,15
48	47,53	6,98	47,50	6,89	47,47	7,09	47,44	7,30
49	48,52	6,82	48,49	7,03	48,46	7,24	48,43	7,45
50	49,51	6,96	49,48	7,18	49,45	7,39	49,42	7,61
Distance.	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	82 Deg.		81 Degrees.					

TRAVERSE TABLE.

18

Distance.	8 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,50	7,10	50,47	7,32	50,44	7,54	50,41	7,76
52	51,49	7,24	51,46	7,46	51,43	7,69	51,40	7,91
53	52,48	7,38	52,45	7,61	52,42	7,83	52,38	8,06
54	53,47	7,52	53,44	7,75	53,41	7,98	53,37	8,21
55	54,47	7,66	54,43	7,89	54,40	8,13	54,36	8,37
56	55,46	7,79	55,44	8,04	55,39	8,28	55,35	8,52
57	56,45	7,93	56,41	8,18	56,37	8,43	56,34	8,67
58	57,44	8,07	57,40	8,32	57,36	8,57	57,33	8,82
59	58,43	8,21	58,39	8,47	58,35	8,72	58,31	8,98
60	59,42	8,35	59,38	8,61	59,34	8,87	59,30	9,13
61	60,41	8,49	60,37	8,75	60,33	9,02	60,29	9,28
62	61,40	8,63	61,36	8,90	61,32	9,16	61,28	9,43
63	62,39	8,77	62,35	9,04	62,31	9,31	62,27	9,58
64	63,38	8,91	63,34	9,18	63,30	9,46	63,26	9,74
65	64,37	9,05	64,33	9,33	64,29	9,61	64,24	9,89
66	65,36	9,19	65,32	9,47	65,28	9,76	65,23	10,04
67	66,35	9,32	66,31	9,61	66,26	9,90	66,22	10,19
68	67,34	9,46	67,30	9,76	67,25	10,05	67,21	10,34
69	68,33	9,60	68,29	9,90	68,24	10,20	68,20	10,50
70	69,32	9,74	69,28	10,04	69,23	10,35	69,19	10,65
71	70,31	9,88	70,27	10,19	70,22	10,50	70,17	10,80
72	71,30	10,02	71,26	10,33	71,21	10,64	71,16	10,95
73	72,29	10,16	72,25	10,47	72,20	10,79	72,15	11,10
74	73,28	10,30	73,23	10,62	73,19	10,94	73,14	11,26
75	74,27	10,44	74,22	10,76	74,18	11,09	74,13	11,41
76	75,26	10,58	75,21	10,91	75,17	11,24	75,11	11,56
77	76,25	10,72	76,20	11,05	76,15	12,38	76,10	11,71
78	77,24	10,86	77,19	11,19	77,14	11,53	77,09	11,86
79	78,23	10,99	78,18	11,34	78,13	11,68	78,08	12,02
80	79,22	11,13	79,17	11,48	79,12	11,83	79,07	12,17
81	80,21	11,27	80,16	11,62	80,11	11,97	80,06	12,32
82	81,20	11,41	81,15	11,77	81,10	12,12	81,05	12,47
83	82,19	11,55	82,14	11,91	82,09	12,27	82,03	12,63
84	83,18	11,69	83,13	12,05	83,08	12,42	83,02	12,78
85	84,17	11,83	84,12	12,20	84,07	12,56	84,01	12,93
86	85,16	11,97	85,11	12,34	85,06	12,72	85,00	13,08
87	86,15	12,11	86,10	12,48	86,05	12,86	86,00	13,23
88	87,14	12,25	87,09	12,63	87,03	13,01	87,00	13,39
89	88,13	12,39	88,08	12,77	88,02	13,16	88,00	13,54
90	89,12	12,53	89,07	12,91	89,01	13,30	89,00	13,69
91	90,11	12,67	90,06	13,06	90,00	13,45	90,00	13,84
92	91,10	12,80	91,05	13,20	91,00	13,60	91,00	14,00
93	92,10	12,94	92,04	13,34	92,00	13,75	92,00	14,15
94	93,09	13,08	93,03	13,49	93,00	13,89	93,00	14,30
95	94,08	13,22	94,02	13,63	94,00	14,04	94,00	14,45
96	95,07	13,36	95,01	13,78	95,00	14,19	95,00	14,60
97	96,06	13,50	96,00	13,92	96,00	14,34	96,00	14,76
98	97,05	13,64	97,00	14,06	97,00	14,49	97,00	14,91
99	98,04	13,78	98,00	14,21	98,00	14,63	98,00	15,06
100	99,03	13,92	99,00	14,35	99,00	14,78	99,00	15,21
Distance.	81 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.

TRAVERSE TABLE.

Distance.	9 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,99	0,26	0,99	0,16	0,99	0,17	0,99	0,17
2	1,98	0,31	1,97	0,32	1,97	0,33	1,97	0,34
3	2,96	0,47	2,96	0,48	2,96	0,50	2,96	0,51
4	3,95	0,63	3,95	0,64	3,95	0,66	3,94	0,68
5	4,94	0,78	4,94	0,80	4,93	0,83	4,92	0,85
6	5,93	0,94	5,92	0,96	5,92	0,99	5,91	1,02
7	6,91	1,10	6,91	1,13	6,90	1,16	6,89	1,19
8	7,90	1,25	7,90	1,29	7,89	1,32	7,88	1,36
9	8,89	1,41	8,88	1,45	8,88	1,49	8,86	1,52
10	9,88	1,56	9,87	1,61	9,86	1,65	9,84	1,70
11	10,87	1,72	10,86	1,77	10,85	1,82	10,85	1,86
12	11,85	1,88	11,84	1,93	11,84	1,98	11,83	2,03
13	12,84	2,03	12,83	2,09	12,82	2,15	12,80	2,20
14	13,83	2,19	13,82	2,25	13,81	2,31	13,79	2,37
15	14,82	2,35	14,81	2,41	14,79	2,48	14,78	2,54
16	15,80	2,50	15,79	2,57	15,78	2,64	15,77	2,71
17	16,79	2,66	16,78	2,73	16,77	2,81	16,75	2,88
18	17,78	2,82	17,77	2,89	17,75	2,97	17,74	3,05
19	18,77	2,97	18,75	3,05	18,74	3,14	18,73	3,22
20	19,75	3,13	19,74	3,22	19,73	3,30	19,71	3,39
21	20,74	3,29	20,73	3,38	20,71	3,47	20,70	3,56
22	21,73	3,44	21,71	3,54	21,70	3,63	21,68	3,73
23	22,72	3,60	22,70	3,70	22,69	3,80	22,67	3,90
24	23,71	3,76	23,69	3,86	23,67	3,96	23,65	4,07
25	24,69	3,91	24,68	4,02	24,66	4,13	24,64	4,24
26	25,68	4,07	25,66	4,18	25,64	4,29	25,62	4,40
27	26,67	4,22	26,65	4,34	26,63	4,46	26,61	4,57
28	27,66	4,38	27,64	4,50	27,61	4,62	27,60	4,74
29	28,64	4,54	28,62	4,66	28,60	4,79	28,58	4,91
30	29,63	4,69	29,61	4,82	29,59	4,96	29,57	5,08
31	30,62	4,85	30,60	4,98	30,58	5,12	30,55	5,25
32	31,61	5,01	31,58	5,14	31,56	5,29	31,54	5,42
33	32,59	5,16	32,57	5,31	32,55	5,45	32,52	5,59
34	33,58	5,32	33,56	5,47	33,53	5,62	33,51	5,76
35	34,57	5,48	34,55	5,63	34,52	5,78	34,49	5,93
36	35,56	5,63	35,54	5,79	35,51	5,95	35,48	6,10
37	36,55	5,79	36,53	5,95	36,49	6,11	36,47	6,27
38	37,53	5,95	37,52	6,11	37,48	6,28	37,45	6,44
39	38,52	6,10	38,49	6,27	38,47	6,44	38,44	6,61
40	39,51	6,26	39,48	6,43	39,45	6,61	39,42	6,78
41	40,50	6,41	40,47	6,59	40,44	6,77	40,41	6,94
42	41,48	6,57	41,45	6,75	41,43	6,94	41,39	7,11
43	42,47	6,73	42,44	6,91	42,41	7,10	42,38	7,28
44	43,46	6,88	43,43	7,07	43,40	7,27	43,36	7,45
45	44,45	7,04	44,42	7,23	44,38	7,43	44,35	7,62
46	45,43	7,20	45,40	7,40	45,37	7,60	45,34	7,79
47	46,42	7,35	46,39	7,56	46,36	7,76	46,32	7,96
48	47,41	7,51	47,38	7,72	47,34	7,93	47,31	8,13
49	48,40	7,66	48,36	7,88	48,33	8,09	48,29	8,30
50	49,39	7,82	49,35	8,04	49,32	8,26	49,28	8,47
Distance.	81 Deg.				80 Degrees			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	

TRAVERSE TABLE.

20

Distance	9 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,37	7,98	50,32	8,20	50,30	8,42	50,26	8,64
52	51,36	8,14	51,34	8,36	51,29	8,59	51,25	8,81
53	52,35	8,29	52,31	8,52	52,27	8,75	52,24	8,98
54	53,34	8,45	53,30	8,68	53,26	8,92	53,22	9,15
55	54,32	8,60	54,29	8,84	54,25	9,08	54,21	9,32
56	55,31	8,76	55,27	9,00	55,23	9,25	55,19	9,48
57	56,30	8,92	56,26	9,16	56,22	9,41	56,18	9,65
58	57,29	9,07	57,25	9,32	57,21	9,58	57,16	9,82
59	58,28	9,23	58,23	9,48	58,19	9,74	58,15	9,91
60	59,26	9,39	59,22	9,62	59,18	9,91	59,13	10,16
61	60,25	9,54	60,21	9,81	60,16	10,07	60,12	10,33
62	61,24	9,70	61,19	9,97	61,15	10,24	61,11	10,50
63	62,22	9,86	62,18	10,13	62,14	10,40	62,09	10,67
64	63,21	10,01	63,17	10,29	63,12	10,57	63,08	10,84
65	64,20	10,17	64,16	10,45	64,11	10,74	64,06	11,01
66	65,19	10,33	65,14	10,61	65,09	10,90	65,05	11,18
67	66,18	10,48	66,13	10,77	66,08	11,07	66,03	11,35
68	67,16	10,64	67,12	10,93	67,07	11,23	67,02	11,52
69	68,15	10,79	68,10	11,09	68,05	11,40	68,00	11,69
70	69,14	10,95	69,09	11,25	69,04	11,56	68,99	11,86
71	70,13	11,11	70,08	11,41	70,03	11,73	69,97	12,02
72	71,11	11,26	71,06	11,57	71,01	11,89	70,96	12,19
73	72,10	11,42	72,05	11,74	72,00	12,06	71,95	12,36
74	73,09	11,58	73,04	11,90	72,99	12,22	72,93	12,52
75	74,08	11,73	74,03	12,06	73,97	12,39	73,92	12,79
76	75,07	11,89	75,01	12,22	74,96	12,55	74,90	12,87
77	76,05	12,05	76,00	12,38	75,94	12,72	75,89	13,04
78	77,04	12,20	76,99	12,54	76,93	12,88	76,87	13,21
79	78,03	13,36	77,97	12,70	77,92	13,05	77,86	13,38
80	79,02	12,51	78,96	12,66	78,90	13,21	78,85	13,55
81	80,00	12,67	79,95	13,02	79,89	13,38	79,83	13,72
82	80,99	12,83	80,93	13,18	80,88	13,54	80,82	13,89
83	81,98	12,98	81,92	13,34	81,86	13,71	81,80	14,06
84	82,97	13,14	82,91	13,50	82,85	13,87	82,79	14,23
85	83,95	13,30	83,90	13,66	83,83	14,04	83,77	14,40
86	84,94	13,45	84,88	13,82	84,82	14,20	84,76	14,57
87	85,93	13,61	85,87	13,99	85,81	14,37	85,74	14,73
88	86,92	13,77	86,86	14,15	86,79	14,53	86,73	14,90
89	87,91	13,92	87,84	14,31	87,78	14,70	87,71	15,07
90	88,89	14,08	88,83	14,47	88,77	14,86	88,70	15,24
91	89,88	14,24	89,82	14,63	89,75	15,03	89,69	15,41
92	90,87	14,39	90,80	14,79	90,74	15,19	90,67	15,58
93	91,86	14,55	91,79	14,95	91,73	15,36	91,66	15,75
94	92,84	14,71	92,78	15,11	92,71	15,52	92,64	15,92
95	93,83	14,86	93,77	15,27	93,70	15,69	93,63	16,09
96	94,82	15,02	94,75	15,43	94,68	15,86	94,61	16,26
97	95,81	15,17	95,74	15,59	95,67	16,02	95,60	16,43
98	96,79	15,33	96,73	15,75	96,66	16,19	96,58	16,60
99	97,78	15,49	97,71	15,91	97,64	16,35	97,57	16,76
100	98,77	15,64	98,70	16,07	98,63	16,52	98,56	16,94
Distance	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	81 Deg.				80 Degrees			

TRAVERSE TABLE.

22

Distance	10 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,23	8,86	50,19	9,08	50,15	9,29	50,11	9,51
52	51,21	9,03	51,17	9,25	51,13	9,48	51,09	9,70
53	52,20	9,20	52,15	9,43	52,11	9,66	52,07	9,89
54	53,18	9,38	53,14	9,61	53,10	9,84	53,05	10,07
55	54,17	9,55	54,12	9,79	54,08	10,02	54,04	10,26
56	55,15	9,75	55,11	9,97	55,06	10,21	55,02	10,45
57	56,14	9,90	56,09	10,14	56,05	10,39	56,00	10,63
58	57,12	10,07	57,07	10,32	57,03	10,57	56,58	10,82
59	58,10	10,25	58,06	10,50	58,01	10,75	57,97	11,01
60	59,09	10,42	59,04	10,68	59,99	10,93	58,01	11,19
61	60,07	10,59	60,03	10,85	59,98	11,12	59,93	11,38
62	61,06	10,77	61,01	11,03	60,96	11,30	60,91	11,56
63	62,04	10,94	61,99	11,21	61,94	11,48	61,89	11,75
64	63,03	11,11	62,98	11,39	62,93	11,66	62,88	11,94
65	64,01	11,29	63,96	11,57	63,91	11,85	63,86	12,12
66	65,00	11,46	64,95	11,74	64,89	12,03	64,84	12,31
67	65,98	11,64	65,93	11,92	65,88	12,21	65,82	12,50
68	66,97	11,81	66,91	12,10	66,86	12,39	66,81	12,68
69	67,95	11,98	67,90	12,28	67,84	12,57	67,79	12,87
70	68,94	12,16	68,88	12,46	68,83	12,76	68,77	13,06
71	69,92	12,33	69,87	12,63	69,81	12,94	69,75	13,24
72	70,91	12,50	70,85	12,81	70,79	13,12	70,74	13,43
73	71,89	12,68	71,84	12,99	71,73	13,30	71,72	13,61
74	72,88	12,85	72,82	13,17	72,76	13,49	72,70	13,80
75	73,86	13,02	73,80	13,35	73,74	13,67	73,68	13,99
76	74,85	13,20	74,79	13,52	74,73	13,85	74,67	14,18
77	75,83	13,37	75,77	13,70	75,71	14,03	75,65	14,36
78	76,82	13,54	76,76	13,88	76,69	14,22	76,63	14,55
79	77,80	13,72	77,74	14,06	77,68	14,40	77,61	14,74
80	78,79	13,89	78,72	14,24	78,66	14,58	78,60	14,92
81	79,77	14,07	79,71	14,41	79,64	14,76	79,58	15,11
82	80,76	14,24	80,69	14,59	80,63	14,94	80,56	15,30
83	81,74	14,41	81,68	14,77	81,61	15,13	81,54	15,48
84	82,72	14,59	82,66	14,95	82,59	15,31	82,53	15,67
85	83,73	14,76	83,64	15,13	83,58	15,49	83,51	15,86
86	84,71	14,93	84,63	15,30	84,56	15,67	84,49	16,04
87	85,60	15,11	85,61	15,48	85,54	15,85	85,47	16,23
88	86,68	15,28	86,60	15,66	86,53	16,04	86,46	16,41
89	87,67	15,46	87,58	15,84	87,51	16,22	87,44	16,60
90	88,65	15,62	88,56	16,02	88,49	16,40	88,42	16,79
91	89,62	15,80	89,55	16,19	89,48	16,53	89,40	16,97
92	90,60	15,98	90,53	16,37	90,46	16,77	90,39	17,16
93	91,59	16,15	91,52	16,55	91,44	16,95	91,37	17,35
94	92,57	16,32	92,50	16,73	92,43	17,13	92,35	17,53
95	93,56	16,50	93,48	16,91	93,41	17,31	93,33	17,72
96	94,54	16,67	94,47	17,08	94,39	17,50	94,32	17,91
97	95,53	16,85	95,45	17,26	95,38	17,68	95,30	18,09
98	96,51	17,02	96,44	17,44	96,36	17,86	96,28	18,28
99	97,50	17,19	97,42	17,62	97,34	18,04	97,26	18,47
100	98,48	17,37	98,40	17,79	98,33	18,22	98,25	18,65
Distance	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	80 Deg.							
				79 Degrees				

TRAVERSE TABLE.

Distance	11 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,98	0,19	0,98	0,20	0,98	0,20	0,98	0,20
2	1,96	0,38	1,96	0,39	1,96	0,40	1,96	0,41
3	2,95	0,57	2,94	0,59	2,94	0,60	2,94	0,61
4	3,93	0,76	3,92	0,78	3,92	0,80	3,92	0,82
5	4,91	0,95	4,91	0,98	4,90	1,00	4,90	1,02
6	5,89	1,15	5,89	1,17	5,88	1,20	5,87	1,22
7	6,87	1,34	6,87	1,37	6,86	1,40	6,85	1,43
8	7,85	1,53	7,85	1,56	7,84	1,60	7,83	1,53
9	8,84	1,72	8,83	1,76	8,82	1,79	8,81	1,83
10	9,82	1,91	9,81	1,95	9,80	1,99	9,79	1,04
11	10,80	2,10	10,79	2,15	10,78	2,19	10,77	2,24
12	11,78	2,29	11,77	2,34	11,76	2,39	11,75	2,44
13	12,76	2,48	12,75	2,54	12,74	2,59	12,73	2,65
14	13,74	2,67	13,73	2,73	13,72	2,79	13,71	2,85
15	14,73	2,86	14,71	2,93	14,70	2,99	14,69	3,06
16	15,71	3,05	15,69	3,12	15,68	3,19	15,67	3,26
17	16,69	3,24	16,67	3,32	16,66	3,39	16,64	3,46
18	17,67	3,43	17,65	3,51	17,64	3,59	17,62	3,66
19	18,65	3,63	18,64	3,71	18,62	3,79	18,60	3,87
20	19,63	3,82	19,62	3,90	19,60	3,99	19,58	4,07
21	20,62	4,01	20,60	4,10	20,58	4,19	20,56	4,28
22	21,60	4,20	21,58	4,29	21,56	4,39	21,54	4,48
23	22,58	4,39	22,56	4,49	22,54	4,59	22,52	4,68
24	23,56	4,58	23,54	4,68	23,52	4,78	23,50	4,89
25	24,54	4,77	24,52	4,88	24,50	4,98	24,48	5,09
26	25,52	4,96	25,50	5,07	25,48	5,18	25,46	5,30
27	26,50	5,15	26,48	5,27	26,46	5,38	26,43	5,50
28	27,49	5,34	27,46	5,46	27,44	5,58	27,41	5,70
29	28,47	5,53	28,44	5,66	28,42	5,78	28,39	5,91
30	29,45	5,72	29,42	5,85	29,40	5,98	29,37	6,11
31	30,43	5,92	30,41	6,05	30,38	6,18	30,35	6,31
32	31,41	6,11	31,39	6,24	31,36	6,38	31,33	6,52
33	32,39	6,30	32,37	6,44	32,34	6,58	32,31	6,72
34	33,38	6,49	33,35	6,63	33,32	6,78	33,29	6,92
35	34,36	6,68	34,33	6,83	34,30	6,98	34,27	7,13
36	35,34	6,87	35,31	7,02	35,28	7,18	35,25	7,33
37	36,32	7,06	36,29	7,22	36,26	7,38	36,23	7,53
38	37,30	7,25	37,27	7,41	37,24	7,58	37,20	7,74
39	38,28	7,44	38,25	7,61	38,22	7,78	38,18	7,94
40	39,27	7,63	39,23	7,80	39,20	7,98	39,16	8,15
41	40,25	7,82	40,21	8,00	40,18	8,17	40,14	8,35
42	41,23	8,01	41,19	8,19	41,16	8,37	41,12	8,55
43	42,21	8,20	42,17	8,39	42,14	8,57	42,10	8,76
44	43,19	8,40	43,16	8,58	43,12	8,77	43,08	8,96
45	44,17	8,59	44,14	8,78	44,10	8,97	44,06	9,16
46	45,16	8,78	45,12	8,97	45,08	9,17	45,04	9,37
47	46,14	9,97	46,10	9,17	46,06	9,37	46,02	9,57
48	47,12	9,16	47,08	9,37	47,04	9,57	47,00	9,78
49	48,10	9,35	48,06	9,56	48,02	9,77	47,97	9,98
50	49,08	9,54	49,04	9,76	49,00	9,97	48,95	10,18
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	79 Deg.		82 Degrees					

TRAVERSE TABLE.

24

Distance	11 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	50,06	9,73	50,02	9,95	49,98	10,17	49,93	10,39
52	51,05	9,92	51,00	10,15	50,96	10,37	50,91	10,59
53	52,03	10,11	51,98	10,34	51,94	10,57	51,89	10,79
54	53,01	10,30	52,96	10,54	52,92	10,77	52,87	11,00
55	53,99	10,50	53,94	10,73	53,90	10,97	53,85	11,20
56	54,97	10,69	54,93	10,93	54,88	11,17	54,83	11,40
57	55,95	10,88	55,91	11,12	55,86	11,37	55,81	11,61
58	56,94	11,07	56,89	11,32	56,84	11,56	56,79	11,81
59	57,92	11,26	57,87	11,51	57,82	11,76	57,76	12,02
60	58,90	11,45	58,85	11,71	58,80	11,96	58,74	12,22
61	59,88	11,64	59,83	11,90	59,78	12,16	59,72	12,41
62	60,86	11,83	60,81	12,09	60,76	12,36	60,70	12,63
63	61,84	12,02	61,79	12,29	61,74	12,56	61,68	12,83
64	62,83	12,21	62,77	12,49	62,72	12,76	62,66	13,03
65	63,81	12,40	63,75	12,68	63,70	12,96	63,64	13,21
66	64,79	12,59	64,73	12,88	64,68	13,16	64,62	13,44
67	65,77	12,79	65,71	13,07	65,66	13,36	65,60	13,64
68	66,75	12,98	66,59	13,27	66,64	13,56	66,58	13,85
69	67,73	13,17	67,67	13,46	67,61	13,76	67,55	14,05
70	68,71	13,36	68,66	13,66	68,59	13,96	68,53	14,26
71	69,70	13,55	69,64	13,85	69,57	14,16	69,51	14,46
72	70,68	13,74	70,62	14,05	70,55	14,36	70,49	14,66
73	71,66	13,93	71,60	14,24	71,53	14,55	71,47	14,87
74	72,64	14,12	72,58	14,44	72,51	14,75	72,45	15,07
75	73,62	14,31	73,56	14,63	73,49	14,95	73,43	15,27
76	74,60	14,50	74,54	14,83	74,47	15,15	74,41	15,48
77	75,59	14,69	75,52	15,02	75,45	15,35	75,39	15,68
78	76,57	14,88	76,50	15,22	76,43	15,55	76,37	15,88
79	77,55	15,07	77,48	15,41	77,41	15,75	77,35	16,09
80	78,53	15,27	78,46	15,61	78,39	15,95	78,32	16,29
81	79,51	15,46	79,44	15,80	79,37	16,15	79,30	16,50
82	80,49	15,65	80,43	16,00	80,35	16,35	80,28	16,70
83	81,48	15,84	81,41	16,19	81,33	16,55	81,26	16,90
84	82,46	16,03	82,39	16,39	82,31	16,75	82,24	17,11
85	83,44	16,22	83,37	16,58	83,29	16,95	83,22	17,31
86	84,42	16,41	84,35	16,78	84,27	17,15	84,20	17,51
87	85,40	16,60	85,33	16,97	85,25	17,35	85,18	17,72
88	86,38	16,79	86,31	17,17	86,23	17,55	86,16	17,92
89	87,37	16,98	87,29	17,36	87,21	17,74	87,14	18,12
90	88,35	17,17	88,27	17,56	88,19	17,94	88,12	18,33
91	89,33	17,36	89,25	17,75	89,17	18,14	89,09	18,53
92	90,31	17,56	90,23	17,95	90,15	18,34	90,07	18,74
93	91,29	17,75	91,21	18,14	91,13	18,54	91,05	18,94
94	92,27	17,94	92,19	18,34	92,11	18,74	92,03	19,14
95	93,26	18,13	93,18	18,54	93,09	18,94	93,01	19,35
96	94,24	18,32	94,16	18,73	94,07	19,14	93,99	19,55
97	95,22	18,51	95,14	18,92	95,05	19,34	94,97	19,75
98	96,20	18,70	96,12	19,12	96,03	19,54	95,95	19,96
99	97,18	18,89	97,10	19,31	97,01	19,74	96,93	20,16
100	98,16	19,08	98,08	19,51	97,99	19,94	97,91	20,36
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	79 Deg.		78 Degrees					

TRAVERSE TABLE.

Distance.	12 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,98	0,21	0,98	0,21	0,98	0,22	0,98	0,21
2	1,96	0,42	1,95	0,42	1,95	0,43	1,95	0,44
3	2,93	0,62	2,93	0,64	2,93	0,65	2,93	0,66
4	3,91	0,83	3,91	0,85	3,91	0,87	3,90	0,88
5	4,89	1,04	4,89	1,06	4,88	1,08	4,88	1,10
6	5,87	1,25	5,86	1,27	5,86	1,30	5,85	1,32
7	6,85	1,46	6,84	1,49	6,83	1,52	6,83	1,55
8	7,83	1,66	7,82	1,70	7,81	1,73	7,80	1,77
9	8,80	1,87	8,80	1,91	8,79	1,95	8,78	1,99
10	9,78	2,08	9,77	2,12	9,76	2,16	9,75	2,21
11	10,76	2,29	10,75	2,33	10,74	2,38	10,73	2,43
12	11,74	2,50	11,73	2,55	11,72	2,60	11,70	2,65
13	12,72	2,70	12,71	2,76	12,69	2,81	12,68	2,87
14	13,70	2,91	13,68	2,97	13,67	3,03	13,66	3,09
15	14,67	3,12	14,66	3,18	14,65	3,25	14,63	3,31
16	15,65	3,33	15,64	3,40	15,62	3,46	15,61	3,53
17	16,63	3,53	16,61	3,61	16,60	3,68	16,58	3,75
18	17,61	3,74	17,59	3,82	17,57	3,90	17,56	3,97
19	18,59	3,95	18,57	4,03	18,55	4,11	18,53	4,19
20	19,56	4,16	19,55	4,24	19,53	4,33	19,51	4,41
21	20,54	4,37	20,52	4,46	20,50	4,55	20,48	4,64
22	21,52	4,57	21,50	4,67	21,48	4,76	21,46	4,86
23	22,50	4,78	22,48	4,88	22,49	4,98	22,43	5,08
24	23,48	4,99	23,45	5,09	23,43	4,20	23,41	5,30
25	24,45	5,20	24,43	5,31	24,41	5,21	24,39	5,51
26	25,43	5,41	25,41	5,52	25,38	5,63	25,36	5,74
27	26,41	5,61	26,39	5,73	26,36	5,85	26,34	5,96
28	27,39	5,82	27,36	5,94	27,34	6,06	27,31	6,18
29	28,37	6,03	28,34	6,15	28,31	6,28	28,29	6,40
30	29,35	6,24	29,32	6,37	29,29	6,49	29,26	6,62
31	30,32	6,45	30,29	6,58	30,27	6,71	30,24	6,84
32	31,30	6,65	31,27	6,79	31,24	6,93	31,21	7,06
33	32,28	6,86	32,25	7,00	32,22	7,14	32,19	7,28
34	33,26	7,07	33,23	7,21	33,19	7,36	33,16	7,50
35	34,24	7,28	34,20	7,43	34,17	7,58	34,14	7,73
36	35,21	7,48	35,18	7,64	35,15	7,79	35,11	7,95
37	36,19	7,69	36,16	7,85	36,12	8,01	36,09	8,17
38	37,17	7,90	37,14	8,06	37,10	8,23	37,06	8,39
39	38,15	8,11	38,11	8,28	38,08	8,44	38,04	8,61
40	39,13	8,32	39,09	8,48	39,05	8,66	39,01	8,83
41	40,10	8,52	40,07	8,70	40,03	8,88	39,99	9,05
42	41,08	8,73	41,04	8,91	41,01	9,09	40,97	9,27
43	42,06	8,94	42,02	9,12	41,98	9,31	41,94	9,49
44	43,04	9,15	43,00	9,34	42,96	9,52	42,92	9,71
45	44,02	9,36	43,98	9,55	43,93	9,74	43,89	9,93
46	44,00	9,56	44,95	9,76	44,91	9,96	44,87	10,15
47	45,97	9,77	45,93	9,97	45,89	10,17	45,84	10,37
48	46,95	9,98	46,91	10,19	46,86	10,39	46,82	10,59
49	47,93	10,19	47,88	10,40	47,84	10,61	47,79	10,81
50	48,91	10,40	48,86	10,61	48,82	10,82	48,77	11,04
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	78 Deg.				77 Degrees			

TRAVERSE TABLE.

26

Distance.	12 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	49,89	10,60	49,84	10,82	49,79	11,04	49,74	11,26
52	50,86	10,81	50,82	11,03	50,77	11,26	50,72	11,48
53	51,84	11,02	51,79	11,25	51,74	11,47	51,69	11,70
54	52,82	11,23	52,77	11,46	52,72	11,69	52,67	11,92
55	53,80	11,44	53,75	11,67	53,70	11,91	53,65	12,14
56	54,78	11,64	54,73	11,88	54,67	12,12	54,62	12,36
57	55,76	11,85	55,70	12,09	55,65	12,34	55,60	12,58
58	56,73	12,06	56,68	12,31	56,63	12,55	56,57	12,80
59	57,71	12,27	57,66	12,52	57,60	12,77	57,55	13,02
60	58,69	12,48	58,63	12,73	58,58	12,99	58,52	13,24
61	59,67	12,68	59,61	12,94	59,55	13,20	59,50	13,46
62	60,65	12,89	60,59	13,16	60,53	13,42	60,47	13,68
63	61,62	13,10	61,57	13,37	61,51	13,64	61,45	13,90
64	62,60	13,31	62,54	13,58	62,48	13,85	62,42	14,13
65	63,58	13,52	63,52	13,79	63,46	14,07	63,40	14,35
66	64,56	13,72	64,50	14,00	64,44	14,29	64,37	14,57
67	65,54	13,93	65,48	14,22	65,41	14,50	65,35	14,79
68	66,51	14,14	66,45	14,43	66,39	14,72	66,32	15,01
69	67,49	14,35	67,43	14,64	67,37	14,93	67,30	15,23
70	68,47	14,55	68,41	14,85	68,34	15,15	68,27	15,45
71	69,45	14,76	69,38	15,07	69,32	15,37	69,25	15,67
72	70,43	14,97	70,36	15,28	70,29	15,58	70,23	15,89
73	71,41	15,18	71,34	15,49	71,27	15,80	71,20	16,11
74	72,38	15,39	72,32	15,70	72,25	16,02	72,18	16,33
75	73,36	15,59	73,29	15,91	73,22	16,23	73,15	16,55
76	74,34	15,80	74,27	16,13	74,20	16,45	74,13	16,77
77	75,32	16,01	75,25	16,34	75,18	16,67	75,10	16,99
78	76,30	16,22	76,22	16,55	76,16	16,88	76,08	17,22
79	77,27	16,43	77,20	16,76	77,13	17,10	77,05	17,44
80	78,25	16,63	78,18	16,97	78,10	17,32	78,03	17,66
81	79,23	16,84	79,16	17,19	79,08	17,53	79,00	17,88
82	80,21	17,05	80,13	17,40	80,06	17,75	79,98	18,10
83	81,19	17,26	81,11	17,61	81,03	17,97	80,95	18,32
84	82,16	17,47	82,09	17,82	82,01	18,18	81,93	18,54
85	83,14	17,67	83,06	18,04	82,99	18,40	82,91	18,76
86	84,12	17,88	84,04	18,25	83,96	18,61	83,88	18,98
87	85,10	18,09	85,02	18,46	84,94	18,83	84,86	19,20
88	86,08	18,30	86,00	18,67	85,92	19,05	85,83	19,42
89	87,06	18,50	86,97	18,84	86,89	19,26	86,81	19,64
90	88,03	18,71	87,95	19,10	87,87	19,48	87,78	19,86
91	89,01	18,92	88,93	19,31	88,84	19,70	88,76	20,08
92	89,99	19,13	89,91	19,52	89,82	19,91	89,73	20,30
93	90,97	19,34	90,88	19,73	90,80	20,13	90,71	20,53
94	91,95	19,55	91,86	19,95	91,77	20,36	91,68	20,75
95	92,93	19,75	92,84	20,16	92,75	20,56	92,66	20,97
96	93,90	19,96	93,81	20,37	93,73	20,78	93,63	21,19
97	94,88	20,17	94,79	20,58	94,70	21,00	94,61	21,41
98	95,86	20,38	95,77	20,79	95,68	21,21	95,59	21,63
99	96,84	20,58	96,75	21,01	96,66	21,43	96,56	21,85
100	97,82	20,79	97,73	21,22	97,63	21,64	97,53	22,07
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	78 Deg.				77 Degree			

TRAVERSE TABLE.

Distance.	13 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,97	0,23	0,97	0,23	0,97	0,23	0,97	0,24
2	1,95	0,45	1,95	0,46	1,95	0,47	1,94	0,48
3	2,92	0,68	2,92	0,69	2,92	0,70	2,91	0,71
4	3,90	0,90	3,89	0,92	3,89	0,93	3,89	0,95
5	4,87	1,13	4,87	1,15	4,86	1,17	4,86	1,19
6	5,85	1,35	5,84	1,38	5,83	1,40	5,83	1,43
7	6,82	1,58	6,81	1,60	6,81	1,63	6,80	1,66
8	7,80	1,80	7,79	1,83	7,78	1,87	7,77	1,90
9	8,77	2,03	8,76	2,06	8,75	2,10	8,74	2,14
10	9,74	2,25	9,73	2,29	9,72	2,34	9,71	2,38
11	10,72	2,47	10,71	2,52	10,70	2,57	10,69	2,62
12	11,69	2,70	11,68	2,75	11,67	2,80	11,66	2,85
13	12,67	2,92	12,65	2,98	12,64	3,03	12,63	3,09
14	13,64	3,15	13,63	3,21	13,61	3,27	13,60	3,33
15	14,62	3,37	14,60	3,44	14,59	3,50	14,57	3,57
16	15,59	3,60	15,57	3,67	15,56	3,74	15,54	3,80
17	16,57	3,82	16,55	3,90	16,53	3,97	16,51	4,04
18	17,54	4,05	17,52	4,13	17,50	4,20	17,48	4,28
19	18,51	4,27	18,49	4,36	18,48	4,44	18,46	4,52
20	19,49	4,50	19,47	4,58	19,45	4,67	19,43	4,75
21	20,46	4,72	20,44	4,81	20,42	4,90	20,40	4,99
22	21,44	4,95	21,42	5,04	21,39	5,14	21,37	5,23
23	22,41	5,17	22,39	5,27	22,36	5,37	22,34	5,47
24	23,38	5,40	23,36	5,50	23,34	5,60	23,31	5,71
25	24,36	5,62	24,34	5,73	24,31	5,84	24,28	5,94
26	25,33	5,85	25,31	5,96	25,28	6,07	25,26	6,18
27	26,31	6,07	26,28	6,19	26,25	6,30	26,23	6,42
28	27,28	6,30	27,26	6,42	27,23	6,54	27,20	6,66
29	28,26	6,52	28,23	6,65	28,20	6,77	28,17	6,89
30	29,23	6,75	29,20	6,88	29,17	7,00	29,14	7,13
31	30,21	6,97	30,17	7,11	30,14	7,24	30,11	7,37
32	31,18	7,20	31,15	7,33	31,12	7,47	31,08	7,61
33	32,15	7,42	32,12	7,56	32,09	7,70	32,05	7,84
34	33,13	7,65	33,10	7,79	33,06	7,94	33,03	8,08
35	34,10	7,87	34,07	8,02	34,03	8,17	34,00	8,32
36	35,08	8,10	35,04	8,25	35,01	8,41	34,97	8,56
37	36,05	8,22	36,02	8,48	35,98	8,64	35,94	8,80
38	37,03	8,55	36,99	8,71	36,95	8,87	36,91	9,03
39	38,00	8,77	37,96	8,94	37,92	9,11	37,88	9,27
40	38,98	9,00	38,94	9,17	38,90	9,34	38,85	9,51
41	39,95	9,22	39,91	9,40	39,87	9,57	39,83	9,75
42	40,92	9,45	40,88	9,63	40,84	9,81	40,80	9,98
43	41,90	9,67	41,86	9,86	41,81	10,04	41,77	10,22
44	42,87	9,90	42,83	10,09	42,78	10,27	42,74	10,46
45	43,85	10,12	43,80	10,31	43,76	10,51	43,71	10,70
46	44,82	10,35	44,78	10,54	44,73	10,74	44,68	10,95
47	45,80	10,57	45,75	10,77	45,70	10,97	45,65	11,17
48	46,77	10,80	46,72	11,00	46,67	11,21	46,63	11,41
49	47,74	11,02	47,70	11,23	47,65	11,44	47,60	11,65
50	48,72	11,25	48,67	11,46	48,62	11,67	48,57	11,89
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	77 Deg				76 Degrees.			

TRAVERSE TABLE.

28

Distance	13 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	49,69	11,47	49,64	11,69	49,59	11,91	49,54	12,12
52	50,67	11,70	50,62	11,92	50,56	12,14	50,51	12,36
53	51,64	11,92	51,59	12,15	51,54	12,37	51,48	12,60
54	52,62	12,15	52,56	12,38	52,51	12,61	52,45	12,84
55	53,59	12,37	53,54	12,61	53,48	12,84	53,42	13,07
56	54,57	12,60	54,51	12,84	54,45	13,07	54,40	13,31
57	55,54	12,82	55,48	13,06	55,43	13,31	55,37	13,55
58	56,51	13,05	56,46	13,29	56,40	13,54	56,34	13,79
59	57,49	13,27	57,43	13,52	57,37	13,77	57,31	13,82
60	58,46	13,50	58,40	13,75	58,34	14,01	58,28	13,76
61	59,44	13,72	59,38	13,98	59,31	14,24	59,25	14,50
62	60,41	13,95	60,35	14,21	60,29	14,47	60,22	14,74
63	61,38	14,17	61,32	14,44	61,26	14,71	61,19	14,97
64	62,36	14,40	62,30	14,67	62,23	14,94	62,17	15,21
65	63,33	14,62	63,27	14,90	63,20	15,17	63,14	15,45
66	64,31	14,85	64,24	15,13	64,18	15,41	64,11	15,69
67	65,28	15,07	65,22	15,36	65,15	15,64	65,08	15,93
68	66,26	15,30	66,19	15,59	66,12	15,88	66,05	16,16
69	67,23	15,52	67,16	15,82	67,09	16,11	67,02	16,40
70	68,21	15,75	68,14	16,04	68,07	16,34	67,99	16,64
71	69,18	15,97	69,11	16,27	69,04	16,58	68,97	16,88
72	70,15	16,20	70,08	16,50	70,01	16,81	69,94	17,11
73	71,13	16,42	71,06	16,73	70,98	17,04	70,91	17,35
74	72,10	16,65	72,03	16,96	71,96	17,28	71,88	17,59
75	73,08	16,87	73,00	17,19	72,93	17,51	72,85	17,82
76	74,05	17,10	73,98	17,42	73,90	17,74	73,82	18,06
77	75,03	17,32	74,95	17,65	74,87	17,98	74,79	18,30
78	76,00	17,55	75,92	17,88	75,85	18,21	75,77	18,54
79	76,97	17,77	76,90	18,11	76,82	18,44	76,74	18,78
80	77,95	18,00	77,87	18,34	77,79	18,68	77,71	19,02
81	78,92	18,22	78,84	18,57	78,76	18,91	78,68	19,25
82	79,90	18,45	79,82	18,79	79,74	19,14	79,65	19,49
83	80,87	18,67	80,79	19,02	80,71	19,38	80,62	19,73
84	81,85	18,90	81,76	19,25	81,68	19,61	81,59	19,97
85	82,82	19,12	82,74	19,48	82,65	19,84	82,56	20,20
86	83,80	19,35	83,71	19,71	83,62	20,08	83,54	20,44
87	84,77	19,57	84,68	19,94	84,60	20,31	84,51	20,68
88	85,74	19,80	85,66	20,17	85,57	20,54	85,48	20,92
89	86,72	20,02	86,63	20,40	86,54	20,78	86,45	21,15
90	87,69	20,25	87,60	20,63	87,51	21,01	87,42	21,39
91	88,67	20,47	88,58	20,86	88,49	21,24	88,39	21,63
92	89,64	20,69	89,55	21,08	89,46	21,48	89,36	21,87
93	90,62	20,92	90,52	21,32	90,43	21,71	90,34	22,11
94	91,59	21,14	91,50	21,55	91,40	21,95	91,31	22,34
95	92,56	21,37	92,47	21,77	92,38	22,18	92,28	22,58
96	93,54	21,59	93,44	22,00	93,35	22,41	93,25	22,82
97	94,51	21,82	94,42	22,23	94,32	22,65	94,22	23,05
98	95,49	22,04	95,39	22,46	95,29	22,88	95,19	23,29
99	96,46	22,27	96,36	22,69	96,26	23,11	96,16	23,53
100	97,44	22,49	97,34	22,92	97,24	23,35	97,13	23,77
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	77 Deg.		76 Degrees					

TRAVERSE TABLE.

Distance	14 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,97	0,24	0,97	0,25	0,97	0,25	0,97	0,25
2	1,94	0,48	1,94	0,49	1,94	0,50	1,93	0,51
3	2,91	0,73	2,91	0,74	2,90	0,75	2,90	0,76
4	3,88	0,97	3,88	0,98	3,87	1,00	3,87	1,02
5	4,85	1,21	4,85	1,23	4,84	1,25	4,83	1,27
6	5,82	1,45	5,81	1,48	5,81	1,50	5,80	1,53
7	6,79	1,69	6,78	1,72	6,78	1,75	6,77	1,78
8	7,76	1,93	7,75	1,97	7,74	2,00	7,74	2,04
9	8,73	2,18	8,72	2,21	8,71	2,25	8,70	2,29
10	9,70	2,42	9,69	2,46	9,68	2,50	9,67	2,55
11	10,67	2,66	10,66	2,71	10,65	2,75	10,64	2,80
12	11,64	2,90	11,63	2,95	11,62	3,00	11,60	3,05
13	12,61	3,14	12,60	3,20	12,59	3,25	12,57	3,31
14	13,58	3,39	13,57	3,45	13,55	3,51	13,54	3,56
15	14,55	3,63	14,54	3,69	14,52	3,76	14,51	3,82
16	15,52	3,87	15,51	3,94	15,49	4,01	15,47	4,07
17	16,49	4,11	16,48	4,18	16,46	4,26	16,44	4,33
18	17,46	4,35	17,45	4,43	17,43	4,51	17,41	4,58
19	18,44	4,60	18,42	4,68	18,39	4,76	18,37	4,84
20	19,41	4,84	19,38	4,92	19,36	5,01	19,34	5,09
21	20,38	5,08	20,35	5,17	20,33	5,26	20,31	5,35
22	21,35	5,32	21,32	5,41	21,30	5,51	21,27	5,60
23	22,32	5,56	22,29	5,66	22,27	5,76	22,24	5,86
24	23,29	5,81	23,26	5,91	23,24	6,01	23,21	6,11
25	24,26	6,05	24,23	6,15	24,20	6,26	24,17	6,36
26	25,23	6,29	25,20	6,40	25,17	6,51	25,14	6,62
27	26,20	6,53	26,17	6,65	26,14	6,76	26,11	6,88
28	27,17	6,77	27,14	6,89	27,11	7,01	27,08	7,13
29	28,14	7,01	28,11	7,34	28,08	7,26	28,04	7,38
30	29,11	7,26	29,08	7,38	29,04	7,51	29,01	7,64
31	30,08	7,50	30,05	7,65	30,01	7,76	29,98	7,89
32	31,05	7,74	31,02	7,88	30,98	8,01	30,95	8,15
33	32,02	7,98	31,99	8,12	31,95	8,26	31,91	8,40
34	32,99	8,23	32,95	8,37	32,92	8,51	32,88	8,66
35	33,96	8,47	33,92	8,62	33,89	8,76	33,85	8,91
36	34,93	8,71	34,89	8,86	34,85	9,01	34,81	9,17
37	35,90	8,95	35,86	9,11	35,82	9,26	35,78	9,42
38	36,87	9,19	36,83	9,35	36,79	9,51	36,73	9,67
39	37,84	9,44	37,80	9,60	37,76	9,76	37,71	9,93
40	38,81	9,68	38,77	9,85	38,73	10,01	38,68	10,18
41	39,78	9,92	39,74	10,09	39,69	10,27	39,65	10,44
42	40,75	10,16	40,71	10,34	40,66	10,52	40,62	10,69
43	41,72	10,40	41,68	10,58	41,63	10,77	41,58	10,95
44	42,69	10,64	42,65	10,83	42,60	11,02	42,55	11,20
45	43,66	10,89	43,62	11,08	43,57	11,27	43,52	11,46
46	44,63	11,13	44,58	11,32	44,53	11,52	44,48	11,72
47	45,60	11,37	45,55	11,57	45,50	11,76	45,45	11,96
48	46,57	11,61	46,52	11,81	46,47	12,02	46,42	12,22
49	47,54	11,85	47,49	12,06	47,44	12,27	47,38	12,47
50	48,51	12,10	48,46	12,31	48,41	12,52	48,35	12,73
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	76 Deg.				75 Degrees			

TRAVERSE TABLE.

30

Distance	14 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	49,48	12,34	49,43	12,55	49,38	12,77	49,32	12,98
52	50,46	12,58	50,40	12,86	50,34	13,02	50,29	13,24
53	51,43	12,82	51,37	13,05	51,31	13,27	51,25	13,49
54	52,40	13,06	52,34	13,29	52,28	13,52	52,22	13,75
55	53,37	13,31	53,31	13,54	53,25	13,77	53,19	14,00
56	54,34	13,55	54,28	13,78	54,22	14,02	54,15	14,26
57	55,31	13,79	55,25	14,03	55,18	14,27	55,12	14,51
58	56,28	14,03	56,22	14,28	56,15	14,52	56,09	14,77
59	57,25	14,27	57,19	14,52	57,12	14,77	57,06	15,02
60	58,21	14,51	58,15	14,77	58,09	15,02	58,02	15,28
61	59,19	14,76	59,12	15,01	59,06	15,27	58,99	15,53
62	60,16	15,00	60,09	15,26	60,02	15,52	59,96	15,78
63	61,13	15,24	61,06	15,51	60,99	15,77	60,92	16,04
64	62,10	15,48	62,03	15,75	61,96	16,01	61,89	16,29
65	63,07	15,72	63,00	16,00	62,93	16,27	62,86	16,55
66	64,04	15,97	63,97	16,25	63,90	16,52	63,82	16,80
67	65,01	16,21	64,94	16,49	64,87	16,78	64,79	17,06
68	65,98	16,45	65,91	16,74	65,83	17,03	65,76	17,31
69	66,95	16,69	66,88	16,98	66,80	17,28	66,73	17,57
70	67,92	16,93	67,85	17,23	67,77	17,53	67,69	17,82
71	68,89	17,18	68,82	17,48	68,74	17,78	68,66	18,08
72	69,86	17,42	69,78	17,72	69,71	18,03	69,63	18,33
73	70,83	17,66	70,75	17,97	70,67	18,28	70,59	18,59
74	71,80	17,90	71,72	18,22	71,64	18,53	71,56	18,84
75	72,77	18,14	72,69	18,46	72,61	18,78	72,53	19,09
76	73,74	18,39	73,66	18,71	73,58	19,03	73,50	19,35
77	74,71	18,63	74,63	18,95	74,55	19,28	74,46	19,60
78	75,68	18,87	75,60	19,20	75,52	19,53	75,43	19,86
79	76,65	19,11	76,57	19,45	76,48	19,78	76,40	20,11
80	77,62	19,35	77,54	19,69	77,45	20,03	77,36	20,37
81	78,59	19,60	78,51	19,94	78,42	20,28	78,33	20,62
82	79,56	19,84	79,48	20,18	79,39	20,53	79,30	20,88
83	80,53	20,08	80,45	20,43	80,36	20,78	80,26	21,13
84	81,50	20,32	81,42	20,68	81,32	21,03	81,23	21,39
85	82,48	20,56	82,38	20,92	82,29	21,28	82,20	21,64
86	83,45	20,81	83,35	21,17	83,26	21,53	83,17	21,90
87	84,42	21,05	84,32	21,41	84,23	21,78	84,13	22,15
88	85,39	21,29	85,29	21,66	85,20	22,03	85,10	22,40
89	86,36	21,53	86,26	21,91	86,17	22,28	86,07	22,66
90	87,33	21,77	87,23	22,15	87,13	22,53	87,03	22,91
91	88,30	22,01	88,20	22,40	88,10	22,78	88,00	23,17
92	89,27	22,26	89,17	22,65	89,07	23,03	88,97	23,42
93	90,24	22,50	90,14	22,89	90,04	23,28	89,94	23,68
94	91,22	22,74	91,11	23,14	91,01	23,54	90,90	23,93
95	92,18	22,98	92,08	23,38	91,97	23,79	91,87	24,19
96	93,15	23,22	93,05	23,63	92,94	24,04	92,84	24,44
97	94,12	23,47	94,02	23,88	93,91	24,29	93,80	24,70
98	95,09	23,71	94,98	24,12	94,88	24,54	94,77	24,95
99	96,06	23,95	95,95	24,37	95,85	24,79	95,74	25,20
100	97,03	24,19	96,92	24,61	96,81	25,04	96,70	25,46
Distance	76 Deg.		75 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	

TRAVERSE TABLE.

Distance	15 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,97	0,26	0,96	0,26	0,96	0,27	0,96	0,27
2	1,93	0,52	1,93	0,53	1,93	0,53	1,92	0,54
3	2,90	0,78	2,89	0,79	2,89	0,80	2,89	0,81
4	3,86	1,03	3,86	1,05	3,85	1,07	3,85	1,09
5	4,83	1,29	4,82	1,31	4,82	1,34	4,81	1,36
6	5,80	1,55	5,79	1,58	5,78	1,60	5,77	1,62
7	6,76	1,81	6,75	1,84	6,74	1,87	6,74	1,90
8	7,73	2,07	7,72	2,10	7,71	2,14	7,70	2,17
9	8,69	2,33	8,68	2,37	8,67	2,40	8,66	2,44
10	9,66	2,59	9,65	2,63	9,64	2,67	9,62	2,71
11	10,62	2,85	10,61	2,89	10,60	2,94	10,59	2,99
12	11,59	3,11	11,58	3,16	11,56	3,21	11,55	3,26
13	12,56	3,36	12,54	3,42	12,53	3,47	12,51	3,53
14	13,52	3,62	13,51	3,68	13,49	3,74	13,47	3,80
15	14,49	3,88	14,47	3,94	14,45	4,01	14,44	4,07
16	15,45	4,14	15,44	4,21	15,42	4,28	15,40	4,34
17	16,42	4,40	16,40	4,47	16,38	4,54	16,36	4,61
18	17,39	4,66	17,37	4,75	17,34	4,81	17,32	4,89
19	18,35	4,91	18,33	5,00	18,31	5,08	18,29	5,16
20	19,32	5,18	19,30	5,26	19,27	5,34	19,25	5,43
21	20,28	5,43	20,26	5,52	20,24	5,61	20,21	5,70
22	21,25	5,69	21,23	5,79	21,20	5,88	21,17	5,97
23	22,21	5,95	22,19	6,05	22,16	6,15	22,14	6,24
24	23,18	6,21	23,15	6,31	23,13	6,41	23,10	6,51
25	24,15	6,47	24,12	6,58	24,09	6,68	24,06	6,79
26	25,11	6,73	25,08	6,84	25,05	6,95	25,02	7,06
27	26,08	6,99	26,05	7,10	26,02	7,22	25,99	7,33
28	27,05	7,25	27,01	7,36	26,98	7,48	26,95	7,60
29	28,01	7,51	27,98	7,63	27,95	7,75	27,91	7,87
30	28,98	7,76	28,94	7,89	28,91	8,02	28,87	8,14
31	29,94	8,02	29,91	8,15	29,87	8,28	29,84	8,41
32	30,91	8,28	30,87	8,42	30,84	8,55	30,80	8,69
33	31,88	8,54	31,84	8,68	31,80	8,82	31,76	8,96
34	32,84	8,80	32,80	8,94	32,76	9,09	32,72	9,25
35	33,81	9,06	33,77	9,21	33,73	9,35	33,69	9,50
36	34,77	9,32	34,73	9,47	34,69	9,62	34,65	9,77
37	35,74	9,58	35,70	9,73	35,65	9,89	35,61	10,04
38	36,71	9,84	36,66	9,99	36,62	10,15	36,57	10,31
39	37,67	10,09	37,63	10,26	37,58	10,42	37,53	10,59
40	38,64	10,35	38,59	10,52	38,54	10,69	38,50	10,86
41	39,60	10,61	39,56	10,78	39,51	10,96	39,46	11,13
42	40,57	10,87	40,52	11,05	40,47	11,22	40,42	11,40
43	41,53	11,13	41,49	11,31	41,44	11,49	41,39	11,67
44	42,50	11,39	42,45	11,57	42,40	11,76	42,35	11,94
45	43,47	11,65	43,42	11,84	43,36	12,03	43,31	12,22
46	44,43	11,91	44,38	12,10	44,33	12,29	44,27	12,49
47	45,40	12,16	45,35	12,36	45,29	12,56	45,24	12,76
48	46,36	12,42	46,31	12,62	46,25	12,83	46,20	13,03
49	47,33	12,68	47,27	12,89	47,22	13,09	47,16	13,30
50	48,30	12,94	48,24	13,15	48,18	13,36	48,12	13,57
Distance	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	79 Deg.				74 Degrees			

TRAVERSE TABLE.

32

Distance	15 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	49,26	13,20	49,20	13,41	49,15	13,62	49,09	13,84
52	50,23	13,46	50,17	13,68	50,11	13,90	50,05	14,11
53	51,19	13,72	51,13	13,94	51,07	14,16	51,01	14,39
54	52,16	13,98	52,10	14,20	52,04	14,43	51,97	14,66
55	53,13	14,23	53,06	14,47	53,00	14,70	52,94	14,98
56	54,09	14,49	54,03	14,73	53,96	14,96	53,90	15,20
57	55,06	14,75	54,99	14,99	54,93	15,23	54,86	15,47
58	56,02	15,01	55,96	15,26	55,89	15,50	55,82	15,74
59	56,99	15,27	56,92	15,52	56,85	15,77	56,79	15,92
60	57,96	15,53	57,89	15,78	57,82	16,03	57,75	16,29
61	58,92	15,79	58,85	16,04	58,78	16,30	58,71	16,56
62	59,89	16,05	59,82	16,31	59,74	16,57	59,67	16,83
63	60,85	16,30	60,78	16,57	60,71	16,84	60,63	17,10
64	61,82	16,56	61,75	16,83	61,67	17,10	61,60	17,37
65	62,79	16,82	62,71	17,10	62,64	17,37	62,56	17,64
66	63,75	17,08	63,68	17,36	63,60	17,64	63,52	17,91
67	64,72	17,34	64,64	17,62	64,56	17,90	64,48	18,19
68	65,68	17,60	65,60	17,89	65,53	18,17	65,45	18,46
69	66,65	17,86	66,57	18,15	66,49	18,44	66,41	18,73
70	67,61	18,12	67,53	18,41	67,45	18,71	67,37	19,00
71	68,58	18,38	68,50	18,67	68,42	18,97	68,33	19,27
72	69,55	18,63	69,46	18,94	69,38	19,24	69,30	19,54
73	70,51	18,89	70,43	19,20	70,34	19,51	70,26	19,82
74	71,48	19,15	71,39	19,46	71,31	19,78	71,22	20,09
75	72,44	19,41	72,36	19,73	72,27	20,04	72,18	20,36
76	73,41	19,67	73,32	19,99	73,24	20,31	73,15	20,63
77	74,38	19,93	74,29	20,25	74,21	20,58	74,11	20,99
78	75,34	20,19	75,25	20,52	75,16	20,84	75,07	21,17
79	76,31	20,45	76,22	20,78	76,13	21,11	76,03	21,44
80	77,27	20,71	77,18	21,04	77,09	21,38	77,00	21,71
81	78,24	20,96	78,15	21,30	78,05	21,65	77,96	21,99
82	79,21	21,22	79,11	21,57	79,01	21,91	78,92	22,26
83	80,17	21,48	80,08	21,83	79,98	22,18	79,88	22,53
84	81,14	21,74	81,04	22,09	80,94	22,45	80,85	22,80
85	82,10	22,00	82,01	22,36	81,91	22,71	81,81	23,07
86	83,07	22,26	82,97	22,62	82,87	22,98	82,77	23,34
87	84,04	22,52	83,94	22,88	83,83	23,25	83,73	23,61
88	85,00	22,78	84,90	23,15	84,80	23,52	84,70	23,89
89	85,97	23,03	85,87	23,41	85,76	23,78	85,66	24,16
90	86,93	23,29	86,83	23,67	86,73	24,05	86,62	24,43
91	87,90	23,55	87,80	23,94	87,69	24,32	87,58	24,70
92	88,87	23,81	88,76	24,20	88,65	24,59	88,55	24,97
93	89,83	24,07	89,72	24,46	89,62	24,85	89,51	25,24
94	90,80	24,33	90,69	24,73	90,58	25,12	90,47	25,52
95	91,76	24,59	91,65	24,99	91,54	25,39	91,43	25,79
96	92,73	24,85	92,62	25,25	92,51	25,65	92,40	26,06
97	93,70	25,11	93,58	25,51	93,47	25,92	93,36	26,33
98	94,66	25,36	94,55	25,78	94,44	26,19	94,32	26,60
99	95,63	25,62	95,51	26,04	95,40	26,46	95,28	26,87
100	96,59	25,88	96,48	26,30	96,36	26,72	96,25	27,14
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	75 Deg.				74 Degrees			

TRAVERSE TABLE.

Distance.	16 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,96	0,28	0,96	0,28	0,96	0,28	0,96	0,29
2	1,92	0,51	1,92	0,56	1,92	0,57	1,92	0,58
3	2,88	0,83	2,88	0,84	2,88	0,85	2,87	0,87
4	3,84	1,10	3,84	1,12	3,84	1,14	3,83	1,15
5	4,80	1,38	4,80	1,40	4,79	1,42	4,79	1,44
6	5,77	1,65	5,76	1,68	5,75	1,70	5,75	1,73
7	6,73	1,93	6,72	1,96	6,71	1,99	6,70	2,02
8	7,69	2,21	7,68	2,24	7,67	2,27	7,66	2,31
9	8,65	2,48	8,64	2,52	8,63	2,56	8,62	2,59
10	9,61	2,76	9,60	2,80	9,59	2,84	9,58	2,86
11	10,57	3,03	10,56	3,08	10,55	3,12	10,53	3,17
12	11,54	3,31	11,52	3,36	11,51	3,41	11,49	3,46
13	12,50	3,58	12,48	3,64	12,46	3,69	12,45	3,75
14	13,46	3,86	13,44	3,92	13,42	3,98	13,41	4,04
15	14,42	4,13	14,40	4,20	14,38	4,26	14,36	4,33
16	15,38	4,41	15,36	4,48	15,34	4,54	15,32	4,61
17	16,34	4,69	16,32	4,76	16,30	4,83	16,28	4,90
18	17,30	4,96	17,28	5,04	17,26	5,11	17,23	5,19
19	18,26	5,24	18,24	5,32	18,22	5,40	18,19	5,48
20	19,23	5,51	19,20	5,60	19,18	5,68	19,15	5,76
21	20,19	5,79	20,16	5,88	20,14	5,96	20,11	6,05
22	21,15	6,06	21,12	6,16	21,09	6,25	21,07	6,34
23	22,11	6,34	22,08	6,44	22,05	6,53	22,02	6,63
24	23,07	6,62	23,04	6,72	23,01	6,82	22,98	6,92
25	24,03	6,89	24,00	7,00	23,97	7,10	23,94	7,21
26	24,99	7,17	24,96	7,28	24,93	7,38	24,90	7,49
27	25,95	7,44	25,92	7,56	25,89	7,67	25,85	7,78
28	26,91	7,72	26,88	7,84	26,85	7,95	26,81	8,07
29	27,88	7,99	27,84	8,12	27,81	8,24	27,77	8,36
30	28,84	8,27	28,80	8,40	28,77	8,52	28,73	8,65
31	29,80	8,55	29,76	8,68	29,72	8,81	29,68	8,93
32	30,76	8,82	30,72	8,96	30,69	9,09	30,64	9,22
33	31,72	9,10	31,68	9,23	31,64	9,37	31,60	9,51
34	32,68	9,37	32,64	9,51	32,60	9,66	32,56	9,80
35	33,64	9,65	33,60	9,79	33,56	9,94	33,51	10,09
36	34,61	9,92	34,56	10,07	34,52	10,23	34,47	10,38
37	35,57	10,20	35,52	10,35	35,48	10,51	35,43	10,66
38	36,53	10,47	36,48	10,63	36,44	10,79	36,39	10,95
39	37,49	10,75	37,44	10,91	37,39	11,08	37,35	11,24
40	38,45	11,03	38,40	11,19	38,35	11,36	38,30	11,53
41	39,41	11,30	39,36	11,47	39,31	11,65	39,26	11,82
42	40,37	11,58	40,32	11,75	40,27	11,93	40,22	12,10
43	41,33	11,85	41,28	12,03	41,23	12,21	41,18	12,40
44	42,30	12,13	42,24	12,31	42,19	12,50	42,13	12,68
45	43,26	12,40	43,20	12,59	43,15	12,78	43,09	12,97
46	44,22	12,68	44,16	12,87	44,11	13,07	44,05	13,26
47	45,18	12,96	45,12	13,15	45,07	13,35	45,01	13,55
48	46,14	13,23	46,08	13,43	46,02	13,63	45,96	13,83
49	47,10	13,51	47,04	13,71	46,98	13,92	46,92	14,12
50	48,06	13,78	48,00	13,99	47,94	14,20	47,88	14,41
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	74 Deg.		73 Degrees					

TRAVERSE TABLE.

34

Distance.	16 Degrees							
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	49,02	14,06	48,96	14,27	48,90	14,49	48,84	14,70
52	49,99	14,33	49,92	14,55	49,86	14,78	49,79	14,98
53	50,95	14,61	50,88	14,83	50,82	15,05	50,75	15,28
54	51,91	14,89	51,84	15,11	51,78	15,34	51,71	15,56
55	52,87	15,16	52,80	15,39	52,74	15,62	52,67	15,85
56	53,83	15,44	53,76	15,67	53,69	15,91	53,62	16,14
57	54,79	15,71	54,72	15,95	54,65	16,19	54,58	16,43
58	55,75	15,99	55,68	16,23	55,61	16,47	55,54	16,72
59	56,71	16,26	56,64	16,51	56,57	16,76	56,50	17,00
60	57,68	16,54	57,60	16,79	57,53	17,04	57,45	17,29
61	58,64	16,81	58,56	17,07	58,49	17,33	58,41	17,58
62	59,60	17,09	59,52	17,35	59,45	17,61	59,37	17,87
63	60,56	17,36	60,48	17,63	60,41	17,89	60,33	18,16
64	61,52	17,64	61,44	17,91	61,36	18,17	61,28	18,45
65	62,48	17,92	62,40	18,19	62,32	18,46	62,24	18,73
66	63,44	18,19	63,36	18,47	63,28	18,75	63,20	19,02
67	64,40	18,47	64,32	18,75	64,24	19,03	64,16	19,31
68	65,37	18,74	65,28	19,03	65,20	19,31	65,11	19,60
69	66,33	19,02	66,24	19,31	66,16	19,60	66,07	19,89
70	67,29	19,30	67,20	19,59	67,12	19,88	67,03	20,17
71	68,25	19,57	68,16	19,87	68,08	20,17	67,99	20,46
72	69,21	19,85	69,12	20,15	69,04	20,45	68,95	20,75
73	70,17	20,12	70,08	20,43	69,99	20,73	69,90	21,04
74	71,13	20,40	71,04	20,71	70,95	21,02	70,86	21,33
75	72,09	20,67	72,00	20,99	71,91	21,30	71,82	21,62
76	73,06	20,95	72,96	21,27	72,87	21,59	72,78	21,90
77	74,02	21,22	73,92	21,55	73,83	21,87	73,73	22,19
78	74,98	21,50	74,88	21,83	74,79	22,15	74,69	22,48
79	75,94	21,78	75,84	22,11	75,75	22,45	75,65	22,77
80	76,90	22,05	76,80	22,39	76,71	22,72	76,61	23,06
81	77,86	22,33	77,76	22,67	77,67	23,01	77,56	23,34
82	78,82	22,60	78,72	22,95	78,62	23,29	78,52	23,62
83	79,78	22,88	79,68	23,23	79,58	23,57	79,48	23,92
84	80,75	23,15	80,64	23,51	80,54	23,86	80,44	24,21
85	81,71	23,43	81,60	23,79	81,50	24,14	81,40	24,50
86	82,67	23,71	82,56	24,07	82,46	24,43	82,35	24,79
87	83,63	23,98	83,52	24,35	83,42	24,71	83,31	25,07
88	84,59	24,26	84,48	24,63	84,38	24,99	84,27	25,36
89	85,55	24,53	85,45	24,91	85,34	25,28	85,22	25,65
90	86,51	24,81	86,41	25,19	86,29	25,56	86,18	25,94
91	87,47	25,08	87,37	25,47	87,25	25,85	87,14	26,23
92	88,44	25,36	88,33	25,75	88,21	26,13	88,10	26,51
93	89,40	25,64	89,29	26,03	89,17	26,41	89,05	26,80
94	90,36	25,91	90,25	26,30	90,13	26,70	90,01	27,09
95	91,32	26,19	91,21	26,58	91,09	26,98	90,97	27,38
96	92,28	26,46	92,17	26,86	92,05	27,27	91,93	27,67
97	93,24	26,74	93,13	27,14	93,01	27,56	92,88	27,96
98	94,20	27,01	94,09	27,42	93,97	27,83	93,84	28,24
99	95,16	27,29	95,05	27,70	94,92	28,12	94,80	28,53
100	96,13	27,56	96,01	27,98	95,88	28,40	95,76	28,82
Distance.	o Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	74 Deg.				73 Degrees			

TRAVERSE TABLE.

Distance.	17 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,96	0,29	0,96	0,30	0,95	0,30	0,95	0,31
2	1,91	0,58	1,91	0,59	1,91	0,60	1,91	0,61
3	2,87	0,88	2,87	0,89	2,86	0,90	2,86	0,92
4	3,83	1,17	3,82	1,19	3,82	1,20	3,81	1,22
5	4,77	1,46	4,78	1,48	4,77	1,50	4,76	1,52
6	5,74	1,75	5,73	1,78	5,72	1,80	5,71	1,83
7	6,69	2,05	6,69	2,08	6,68	2,11	6,67	2,13
8	7,65	2,34	7,64	2,37	7,63	2,41	7,62	2,44
9	8,61	2,63	8,60	2,67	8,58	2,71	8,57	2,74
10	9,56	2,92	9,55	2,97	9,54	3,01	9,52	3,05
11	10,52	3,22	10,51	3,26	10,49	3,31	10,48	3,35
12	11,48	3,51	11,46	3,56	11,45	3,61	11,43	3,66
13	12,43	3,81	12,42	3,86	12,40	3,91	12,38	3,96
14	13,39	4,09	13,37	4,15	13,35	4,21	13,33	4,27
15	14,35	4,39	14,33	4,45	14,31	4,51	14,29	4,57
16	15,30	4,68	15,28	4,74	15,26	4,81	15,24	4,88
17	16,26	4,97	16,24	5,04	16,21	5,11	16,19	5,18
18	17,21	5,26	17,19	5,34	17,17	5,41	17,14	5,49
19	18,17	5,56	18,15	5,63	18,12	5,71	18,10	5,79
20	19,13	5,85	19,10	5,93	19,07	6,01	19,05	6,10
21	20,08	6,14	20,06	6,23	20,03	6,31	20,00	6,40
22	21,04	6,43	21,01	6,52	20,98	6,62	20,95	6,71
23	22,00	6,72	21,97	6,82	21,94	6,92	21,91	7,01
24	22,95	7,02	22,92	7,12	22,89	7,22	22,86	7,32
25	23,91	7,31	23,88	7,41	23,84	7,52	23,81	7,62
26	24,86	7,60	24,83	7,70	24,80	7,82	24,76	7,93
27	25,82	7,89	25,79	8,01	25,75	8,12	25,72	8,23
28	26,78	8,19	26,74	8,30	26,70	8,42	26,67	8,54
29	27,73	8,48	27,70	8,60	27,66	8,72	27,62	8,84
30	28,69	8,77	28,65	8,90	28,61	9,02	28,57	9,15
31	29,65	9,06	29,61	9,19	29,57	9,32	29,52	9,45
32	30,60	9,36	30,56	9,49	30,52	9,62	30,48	9,76
33	31,56	9,65	31,52	9,79	31,47	9,92	31,43	10,06
34	32,51	9,94	32,47	10,08	32,42	10,22	32,38	10,37
35	33,47	10,23	33,43	10,38	33,38	10,53	33,33	10,67
36	34,43	10,53	34,38	10,68	34,33	10,83	34,29	10,97
37	35,38	10,82	35,34	10,97	35,29	11,13	35,24	11,28
38	36,34	11,11	36,29	11,27	36,24	11,43	36,19	11,58
39	37,30	11,40	37,25	11,56	37,20	11,73	37,14	11,89
40	38,25	11,70	38,20	11,86	38,15	12,03	38,10	12,19
41	39,21	11,99	39,16	12,16	39,10	12,33	39,05	12,50
42	40,17	12,28	40,11	12,46	40,06	12,63	40,00	12,80
43	41,12	12,57	41,07	12,75	41,01	12,93	40,95	13,11
44	42,08	12,86	42,02	13,05	41,96	13,23	41,91	13,41
45	43,03	13,15	42,98	13,34	42,92	13,53	42,86	13,72
46	43,99	13,45	43,93	13,64	43,87	13,83	43,81	14,02
47	44,95	13,74	44,89	13,94	44,83	14,13	44,76	14,33
48	45,90	14,03	45,84	14,23	45,78	14,43	45,72	14,63
49	46,86	14,33	46,80	14,53	46,73	14,74	46,67	14,94
50	47,82	14,62	47,75	14,83	47,69	15,04	47,62	15,24
Distance.	73 Deg.				72 Degrees.			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

36

Distance	17 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	48,77	14,91	48,71	15,12	48,64	15,34	48,57	15,55
52	49,73	15,20	49,66	15,42	49,59	15,64	49,53	15,85
53	50,68	15,50	50,62	15,72	50,55	15,94	50,48	16,16
54	51,64	15,79	51,57	16,01	51,50	16,24	51,43	16,46
55	52,60	16,08	52,53	16,31	52,46	16,54	52,38	16,77
56	53,55	16,37	53,48	16,61	53,41	16,84	53,34	17,07
57	54,51	16,67	54,44	16,90	54,36	17,14	54,29	17,38
58	55,47	16,96	55,39	17,20	55,32	17,44	55,24	17,68
59	56,42	17,25	56,35	17,50	56,27	17,74	56,19	17,99
60	57,38	17,54	57,30	17,79	57,22	18,04	57,14	18,39
61	58,33	17,85	58,26	18,09	58,18	18,34	58,10	18,60
62	59,29	18,13	59,21	18,39	59,13	18,64	59,05	18,90
63	60,25	18,42	60,17	18,68	60,08	18,95	60,00	19,21
64	61,20	18,71	61,12	18,98	61,04	19,25	60,95	19,51
65	62,16	19,00	62,08	19,27	61,99	19,55	61,91	19,82
66	63,12	19,30	62,03	19,57	62,95	19,85	62,86	20,12
67	64,07	19,59	63,99	19,87	63,90	20,15	63,81	20,43
68	65,03	19,88	64,94	20,16	64,85	20,45	64,76	20,73
69	65,99	20,17	65,90	20,46	65,81	20,75	65,72	21,04
70	66,94	20,47	66,85	20,76	66,76	21,05	66,69	21,34
71	67,90	20,76	67,81	21,05	67,71	21,35	67,62	21,65
72	68,85	21,05	68,76	21,35	68,67	21,65	68,57	21,95
73	69,81	21,34	69,72	21,65	69,62	21,95	69,53	22,26
74	70,77	21,64	70,67	21,94	70,58	22,25	70,48	22,56
75	71,72	21,93	71,63	22,14	71,53	22,55	71,43	22,86
76	72,68	22,22	72,58	22,54	72,48	22,85	72,38	23,17
77	73,64	22,51	73,54	22,83	73,44	23,16	73,34	23,48
78	74,69	22,81	74,49	23,13	74,39	23,46	74,29	23,78
79	75,55	23,10	75,45	23,43	75,34	23,76	75,24	24,08
80	76,50	23,39	76,40	23,72	76,30	24,06	76,19	24,39
81	77,46	23,68	77,36	24,02	77,25	24,36	77,14	24,69
82	78,42	23,98	78,31	24,32	78,21	24,66	78,10	25,00
83	79,37	24,27	79,27	24,61	79,16	24,96	79,05	25,30
84	80,33	24,56	80,22	24,91	80,11	25,26	80,00	25,61
85	81,29	24,88	81,18	25,21	81,07	25,56	80,95	25,91
86	82,24	25,14	82,13	25,50	82,02	25,86	81,91	26,22
87	83,20	25,44	83,09	25,80	82,97	26,16	82,86	26,52
88	84,15	25,73	84,04	26,10	83,93	26,46	83,81	26,83
89	85,11	26,02	85,00	26,39	84,88	26,76	84,76	27,13
90	86,07	26,31	85,95	26,69	85,84	27,06	85,72	27,44
91	87,02	26,61	86,91	26,99	86,79	27,36	86,67	27,74
92	87,98	26,90	87,86	27,28	87,74	27,67	87,62	28,05
93	88,94	27,19	88,82	27,58	88,70	27,97	88,57	28,35
94	89,89	27,48	89,77	27,88	89,65	28,27	89,53	28,66
95	90,85	27,76	90,73	28,17	90,60	28,57	90,48	28,96
96	91,81	28,07	91,68	28,47	91,56	28,87	91,43	29,27
97	92,76	28,36	92,64	28,76	92,51	29,17	92,38	29,57
98	93,72	28,65	93,59	29,06	93,47	29,47	93,34	29,88
99	94,67	28,94	94,55	29,36	94,42	29,77	94,29	30,18
100	95,63	29,24	95,50	29,65	95,37	30,07	95,24	30,49
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
73 Deg. 72 Degrees								

TRAVERSE TABLE.

Distance	18 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
1	0,95	0,31	0,95	0,31	0,95	0,32	0,95	0,32
2	1,90	0,62	1,90	0,63	1,90	0,63	1,89	0,64
3	2,85	0,93	2,85	0,94	2,84	0,95	2,84	0,96
4	3,80	1,24	3,80	1,24	3,79	1,27	3,79	1,29
5	4,75	1,54	4,75	1,57	4,74	1,59	4,73	1,61
6	5,71	1,85	5,70	1,88	5,69	1,90	5,68	1,93
7	6,66	2,16	6,65	2,19	6,64	2,22	6,63	2,25
8	7,61	2,47	7,60	2,50	7,59	2,54	7,57	2,57
9	8,56	2,78	8,55	2,82	8,53	2,86	8,52	2,89
10	9,51	3,09	9,50	3,13	9,48	3,17	9,47	3,21
11	10,46	3,40	10,45	3,44	10,43	3,49	10,42	3,54
12	11,41	3,71	11,40	3,76	11,38	3,81	11,36	3,86
13	12,36	4,02	12,35	4,07	12,33	4,12	12,31	4,18
14	13,31	4,33	13,30	4,38	13,28	4,44	13,26	4,50
15	14,27	4,63	14,24	4,70	14,22	4,76	14,20	4,82
16	15,22	4,94	15,19	5,01	15,17	5,08	15,15	5,14
17	16,17	5,25	16,14	5,32	16,12	5,39	16,10	5,46
18	17,12	5,56	17,09	5,64	17,07	5,71	17,04	5,79
19	18,07	5,87	18,04	5,95	18,02	6,03	17,99	6,11
20	19,02	6,18	18,99	6,26	18,97	6,35	18,94	6,43
21	19,97	6,49	19,94	6,58	19,91	6,66	19,89	6,71
22	20,92	6,80	20,89	6,89	20,86	6,98	20,83	7,07
23	21,87	7,11	21,84	7,20	21,81	7,30	21,78	7,39
24	22,82	7,42	22,79	7,52	22,76	7,61	22,73	7,71
25	23,78	7,72	23,74	7,83	23,71	7,93	23,67	8,04
26	24,73	8,03	24,69	8,14	24,66	8,25	24,62	8,36
27	25,68	8,34	25,64	8,45	25,60	8,57	25,57	8,68
28	26,63	8,65	26,59	8,77	26,55	8,88	26,51	9,00
29	27,58	8,96	27,54	9,08	27,50	9,20	27,46	9,32
30	28,53	9,27	28,49	9,39	28,45	9,52	28,41	9,64
31	29,48	9,58	29,44	9,71	29,40	9,84	29,35	9,96
32	30,43	9,89	30,39	10,02	30,35	10,15	30,30	10,29
33	31,38	10,20	31,34	10,33	31,29	10,47	31,25	10,61
34	32,34	10,51	32,30	10,65	32,24	10,79	32,19	10,93
35	33,29	10,82	33,25	10,96	33,19	11,11	33,14	11,25
36	34,24	11,12	34,20	11,27	34,14	11,42	34,09	11,57
37	35,19	11,43	35,15	11,59	35,09	11,74	35,04	11,89
38	36,14	11,74	36,10	11,90	36,04	12,06	35,98	12,21
39	37,09	12,05	37,05	12,21	36,98	12,37	36,93	12,54
40	38,04	12,36	37,99	12,53	37,93	12,69	37,88	12,86
41	38,99	12,67	38,94	12,84	38,88	13,01	38,82	13,18
42	39,94	12,98	39,89	13,15	39,83	13,33	39,77	13,50
43	40,89	13,29	40,84	13,46	40,78	13,64	40,72	13,82
44	41,85	13,60	41,79	13,78	41,73	13,96	41,66	14,14
45	42,80	13,91	42,74	14,09	42,67	14,28	42,61	14,47
46	43,75	14,21	43,69	14,40	43,62	14,60	43,56	14,79
47	44,70	14,52	44,63	14,72	44,57	14,91	44,51	15,11
48	45,65	14,83	45,58	15,03	45,52	15,23	45,45	15,43
49	46,60	15,14	46,53	15,34	46,47	15,55	46,40	15,75
50	47,55	15,45	47,48	15,66	47,42	15,86	47,35	16,07
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	72 Deg.				71 Degrees			

TRAVERSE TABLE.

38

Distance	18 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	48,50	15,76	48,43	15,97	48,36	16,18	48,29	16,39
52	49,45	16,07	49,38	16,28	49,31	16,50	49,24	16,71
53	50,41	16,38	50,33	16,60	50,26	16,82	50,19	17,04
54	51,36	16,69	51,28	16,91	51,21	17,13	51,13	17,36
55	52,31	17,00	52,23	17,22	52,16	17,45	52,08	17,68
56	53,26	17,30	53,18	17,54	53,11	17,80	53,03	18,00
57	54,21	17,61	54,13	17,85	54,05	18,08	53,98	18,32
58	55,16	17,92	55,08	18,16	55,00	18,40	54,92	18,64
59	56,11	18,23	56,03	18,48	55,95	18,72	55,87	18,96
60	57,06	18,54	56,98	18,79	56,90	19,04	56,82	19,29
61	58,01	18,85	57,94	19,10	57,85	19,35	57,76	19,61
62	58,97	19,16	58,89	19,42	58,80	19,67	58,71	19,93
63	59,92	19,47	59,84	19,73	59,74	19,99	59,66	20,25
64	60,87	19,78	60,79	20,04	60,69	20,31	60,60	20,57
65	61,82	20,09	61,74	20,36	61,64	20,62	61,55	20,89
66	62,77	20,39	62,69	20,67	62,59	20,94	62,50	21,21
67	63,72	20,70	63,64	20,98	63,54	21,26	63,44	21,54
68	64,67	21,01	64,59	21,29	64,49	21,58	64,39	21,86
69	65,62	21,32	65,54	21,61	65,43	21,89	65,34	22,18
70	66,57	21,63	66,48	21,92	66,38	22,21	66,28	22,50
71	67,52	21,94	67,43	22,23	67,33	22,53	67,23	22,82
72	68,48	22,25	68,38	22,55	68,28	22,85	68,18	23,14
73	69,43	22,56	69,33	22,86	69,23	23,16	69,13	23,47
74	70,38	22,87	70,28	23,17	70,18	23,48	70,07	23,79
75	71,33	23,18	71,23	23,49	71,12	23,80	71,02	24,11
76	72,28	23,48	72,18	23,80	72,07	24,11	71,97	24,43
77	73,23	23,79	73,13	24,11	73,02	24,43	72,91	24,75
78	74,18	24,10	74,08	24,43	73,97	24,75	73,86	25,07
79	75,13	24,41	75,03	24,74	74,92	25,07	74,81	25,39
80	76,08	24,72	75,98	25,05	75,87	25,38	75,75	25,71
81	77,04	25,03	76,92	25,37	76,81	25,70	76,70	26,04
82	77,99	25,34	77,87	25,68	77,76	26,02	77,65	26,36
83	78,94	25,65	78,82	25,99	78,71	26,34	78,59	26,68
84	79,89	25,96	79,77	26,31	79,66	26,65	79,54	27,00
85	80,84	26,27	80,72	26,62	80,61	26,97	80,49	27,32
86	81,79	26,58	81,67	26,93	81,56	27,29	81,44	27,64
87	82,74	26,88	82,62	27,24	82,50	27,60	82,38	27,97
88	83,69	27,19	83,57	27,56	83,45	27,92	83,33	28,29
89	84,64	27,50	84,52	27,87	84,40	28,24	84,28	28,61
90	85,59	27,81	85,47	28,18	85,35	28,56	85,22	28,93
91	86,55	28,12	86,42	28,50	86,30	28,87	86,17	29,25
92	87,50	28,43	87,37	28,81	87,25	29,19	87,12	29,57
93	88,45	28,74	88,32	29,12	88,19	29,51	88,06	29,89
94	89,40	29,05	89,27	29,44	89,14	29,83	89,01	30,22
95	90,35	29,36	90,22	29,75	90,09	30,14	89,96	30,54
96	91,30	29,67	91,17	30,06	91,04	30,46	90,91	30,86
97	92,25	29,97	92,12	30,38	91,99	30,78	91,85	31,18
98	93,20	30,28	93,07	30,69	92,93	31,09	92,80	31,50
99	94,15	30,59	94,02	31,00	93,88	31,41	93,75	31,82
100	95,11	30,90	94,97	31,32	94,83	31,73	94,69	32,14
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	72 Deg.		71 Degrees					

TRAVERSE TABLE.

Distance	19 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,95	0,33	0,94	0,33	0,94	0,33	0,94	0,34
2	1,89	0,65	1,89	0,66	1,88	0,67	1,88	0,68
3	2,84	0,98	2,83	0,99	2,83	1,00	2,82	1,01
4	3,78	1,30	3,78	1,32	3,77	1,33	3,76	1,35
5	4,73	1,63	4,72	1,65	4,71	1,67	4,71	1,69
6	5,67	1,95	5,66	1,98	5,66	2,00	5,65	2,03
7	6,62	2,28	6,61	2,31	6,60	2,34	6,59	2,36
8	7,56	2,60	7,55	2,64	7,54	2,67	7,53	2,70
9	8,51	2,93	8,50	2,97	8,48	3,00	8,47	3,04
10	9,46	3,26	9,44	3,30	9,43	3,34	9,41	3,38
11	10,40	3,58	10,38	3,63	10,37	3,67	10,35	3,72
12	11,35	3,91	11,33	3,96	11,31	4,01	11,29	4,06
13	12,29	4,23	12,27	4,29	12,25	4,34	12,24	4,39
14	13,24	4,56	13,22	4,62	13,20	4,67	13,18	4,73
15	14,18	4,88	14,16	4,95	14,14	5,01	14,12	5,07
16	15,13	5,21	15,11	5,27	15,08	5,34	15,06	5,41
17	16,07	5,53	16,05	5,60	16,02	5,67	16,00	5,74
18	17,02	5,86	16,99	5,93	16,97	6,01	16,94	6,08
19	17,97	6,19	17,94	6,26	17,91	6,34	17,88	6,42
20	18,91	6,51	18,88	6,59	18,85	6,68	18,82	6,76
21	19,86	6,84	19,83	6,92	19,80	7,01	19,76	7,10
22	20,80	7,16	20,77	7,25	20,74	7,34	20,71	7,43
23	21,75	7,49	21,71	7,58	21,68	7,68	21,65	7,77
24	22,69	7,81	22,66	7,91	22,62	8,01	22,59	8,11
25	23,64	8,14	23,60	8,24	23,57	8,34	23,53	8,45
26	24,58	8,46	24,55	8,57	24,51	8,68	24,47	8,79
27	25,53	8,79	25,49	8,90	25,45	9,01	25,41	9,12
28	26,47	9,12	26,43	9,23	26,39	9,35	26,35	9,46
29	27,42	9,44	27,38	9,56	27,34	9,68	27,29	9,80
30	28,37	9,77	28,32	9,89	28,28	10,01	28,23	10,14
31	29,31	10,09	29,27	10,22	29,22	10,35	29,18	10,48
32	30,26	10,42	30,21	10,55	30,16	10,68	30,12	10,81
33	31,20	10,74	31,15	10,88	31,11	11,01	31,06	11,15
34	32,15	11,07	32,10	11,21	32,05	11,35	32,00	11,49
35	33,09	11,39	33,04	11,54	32,99	11,68	32,94	11,83
36	34,04	11,72	33,99	11,87	33,93	12,02	33,88	12,17
37	34,98	12,05	34,93	12,20	34,88	12,35	34,82	12,50
38	35,93	12,37	35,88	12,53	35,82	12,68	35,76	12,84
39	36,88	12,70	36,82	12,86	36,76	13,02	36,71	13,18
40	37,82	13,02	37,76	13,19	37,71	13,35	37,65	13,52
41	38,77	13,34	38,71	13,52	38,65	13,69	38,59	13,85
42	39,71	13,67	39,65	13,85	39,59	14,02	39,53	14,19
43	40,66	14,00	40,60	14,18	40,53	14,35	40,47	14,53
44	41,60	14,32	41,54	14,51	41,48	14,69	41,41	14,87
45	42,55	14,65	42,48	14,84	42,42	15,02	42,35	15,21
46	43,49	14,98	43,43	15,17	43,36	15,35	43,29	15,54
47	44,44	15,30	44,37	15,50	44,30	15,69	44,23	15,88
48	45,39	15,63	45,32	15,82	45,25	16,02	45,18	16,22
49	46,33	15,95	46,26	16,15	46,19	16,36	46,12	16,56
50	47,28	16,28	47,21	16,48	47,13	16,69	47,06	16,90
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	71 Deg.				70 Degrees			

TRAVERSE TABLE.

40

Distance	19 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	48,22	16,60	48,15	16,81	48,07	17,02	48,00	17,23
52	49,17	16,93	49,09	17,14	49,02	17,36	48,94	17,57
53	50,11	17,25	50,04	17,47	49,96	17,69	49,88	17,91
54	51,06	17,58	50,98	17,80	50,90	18,03	50,82	18,25
55	52,00	17,91	51,92	18,13	51,84	18,35	51,76	18,59
56	52,95	18,23	52,87	18,46	52,79	18,69	52,71	18,92
57	53,89	18,56	53,81	18,79	53,73	19,03	53,65	19,26
58	54,84	18,88	54,76	19,12	54,67	19,36	54,59	19,60
59	55,79	19,21	55,70	19,45	55,62	19,69	55,53	19,94
60	56,73	19,53	56,64	19,78	56,56	20,03	56,47	20,27
61	57,68	19,86	57,59	20,11	57,50	20,36	57,41	20,61
62	58,62	20,18	58,53	20,44	58,44	20,70	58,35	20,95
63	59,57	20,51	59,48	20,77	59,39	21,03	59,29	21,29
64	60,51	20,84	60,42	21,10	60,33	21,36	60,24	21,63
65	61,46	21,16	61,36	21,43	61,27	21,70	61,18	21,96
66	62,40	21,49	62,31	21,76	62,21	22,03	62,12	22,30
67	63,35	21,81	63,25	22,09	63,16	22,37	63,06	22,64
68	64,29	22,14	64,20	22,42	64,10	22,70	64,00	22,98
69	65,24	22,46	65,14	22,75	65,04	23,03	64,94	23,32
70	66,19	22,79	66,07	23,08	65,98	23,37	65,88	23,65
71	67,13	23,11	67,03	23,41	66,93	23,70	66,82	23,99
72	68,07	23,44	67,97	23,74	67,87	24,03	67,76	24,33
73	69,02	23,76	68,92	24,07	68,81	24,37	68,71	24,67
74	69,97	24,09	69,86	24,40	69,76	24,70	69,65	25,01
75	70,91	24,42	70,81	24,73	70,70	25,04	70,59	25,34
76	71,86	24,74	71,75	25,06	71,64	25,37	71,53	25,68
77	72,80	25,07	72,69	25,39	72,58	25,70	72,47	26,02
78	73,75	25,39	73,64	25,72	73,53	26,04	73,41	26,36
79	74,69	25,72	74,58	26,05	74,47	26,37	74,35	26,70
80	75,64	26,04	75,53	26,37	75,41	26,70	75,29	27,03
81	76,59	26,37	76,47	26,70	76,35	27,04	76,23	27,37
82	77,53	26,70	77,41	27,03	77,30	27,37	77,18	27,71
83	78,48	27,02	78,36	27,36	78,24	27,71	78,12	28,05
84	79,42	27,35	79,30	27,69	79,18	28,04	79,06	28,39
85	80,37	27,67	80,25	28,02	80,12	28,37	80,00	28,72
86	81,31	28,00	81,19	28,35	81,07	28,71	80,94	29,06
87	82,26	28,32	82,14	28,68	82,01	29,04	81,88	29,40
88	83,21	28,65	83,08	29,01	82,95	29,37	82,82	29,74
89	84,15	28,98	84,02	29,34	83,89	29,71	83,76	30,07
90	85,10	29,30	84,97	29,67	84,84	30,04	84,71	30,41
91	86,04	29,63	85,91	30,00	85,78	30,38	85,65	30,75
92	86,99	29,95	86,86	30,33	86,72	30,71	86,59	31,09
93	87,93	30,28	87,80	30,66	87,67	31,04	87,53	31,43
94	88,88	30,60	88,74	30,99	88,61	31,38	88,47	31,76
95	89,82	30,93	89,69	31,32	89,55	31,71	89,41	32,10
96	90,77	31,25	90,63	31,65	90,49	32,05	90,35	32,44
97	91,71	31,58	91,58	31,98	91,44	32,38	91,29	32,78
98	92,66	31,90	92,52	32,31	92,36	32,71	92,24	33,12
99	93,61	32,23	93,46	32,64	93,32	33,05	93,18	33,45
100	94,55	32,56	94,41	32,97	94,26	33,38	94,12	33,79
Distance	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	71 Deg.		70 Degrees					

TRAVERSE TABLE.

Distance.	20 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,94	0,34	0,94	0,35	0,94	0,35	0,94	0,35
2	1,88	0,68	1,88	0,69	1,87	0,70	1,87	0,71
3	2,82	1,03	2,82	1,04	2,81	1,05	2,81	1,06
4	3,76	1,37	3,75	1,38	3,75	1,40	3,74	1,42
5	4,70	1,71	4,69	1,73	4,68	1,75	4,68	1,71
6	5,64	2,05	5,63	2,08	5,62	2,10	5,61	2,13
7	6,58	2,39	6,57	2,42	6,56	2,45	6,55	2,48
8	7,52	2,74	7,51	2,77	7,49	2,80	7,48	2,83
9	8,46	3,08	8,44	3,12	8,43	3,15	8,42	3,19
10	9,40	3,42	9,38	3,46	9,37	3,50	9,35	3,54
11	10,34	3,76	10,32	3,81	10,30	3,85	10,29	3,90
12	11,28	4,10	11,26	4,15	11,24	4,20	11,22	4,25
13	12,22	4,45	12,20	4,50	12,18	4,55	12,16	4,61
14	13,16	4,79	13,14	4,85	13,11	4,90	13,09	4,96
15	14,10	5,13	14,07	5,19	14,05	5,25	14,03	5,31
16	15,04	5,47	15,01	5,54	14,99	5,60	14,96	5,67
17	15,98	5,81	15,95	5,88	15,92	5,95	15,90	6,02
18	16,92	6,16	16,89	6,22	16,86	6,30	16,83	6,38
19	17,85	6,50	17,83	6,58	17,80	6,65	17,77	6,73
20	18,79	6,84	18,76	6,92	18,73	7,00	18,70	7,09
21	19,73	7,18	19,71	7,27	19,67	7,35	19,64	7,44
22	20,67	7,52	20,64	7,61	20,61	7,71	20,57	7,80
23	21,61	7,87	21,58	7,96	21,54	8,06	21,51	8,15
24	22,55	8,21	22,52	8,31	22,48	8,41	22,45	8,50
25	23,49	8,55	23,46	8,65	23,42	8,76	23,38	8,86
26	24,43	8,89	24,39	9,00	24,35	9,11	24,31	9,21
27	25,37	9,23	25,33	9,35	25,29	9,46	25,25	9,57
28	26,31	9,58	26,27	9,69	26,23	9,81	26,18	9,92
29	27,25	9,92	27,21	10,04	27,16	10,16	27,12	10,27
30	28,19	10,26	28,15	10,38	28,10	10,51	28,05	10,63
31	29,13	10,60	29,08	10,73	29,04	10,86	28,99	10,98
32	30,07	10,95	30,02	11,08	29,97	11,21	29,93	11,34
33	31,01	11,29	30,96	11,42	30,91	11,56	30,86	11,69
34	31,95	11,63	31,90	11,77	31,85	11,91	31,80	12,05
35	32,89	11,97	32,84	12,12	32,78	12,26	32,73	12,40
36	33,83	12,31	33,78	12,46	33,72	12,61	33,67	12,76
37	34,77	12,66	34,71	12,81	34,66	12,96	34,60	13,11
38	35,71	13,00	35,62	13,15	35,59	13,31	35,54	13,46
39	36,65	13,34	36,59	13,50	36,53	13,66	36,47	13,82
40	37,59	13,68	37,53	13,85	37,47	14,01	37,41	14,17
41	38,53	14,02	38,47	14,19	38,40	14,36	38,34	14,53
42	39,47	14,37	39,40	14,54	39,34	14,71	39,28	14,88
43	40,41	14,71	40,34	14,88	40,28	15,06	40,21	15,23
44	41,35	15,05	41,28	15,23	41,21	15,41	41,15	15,59
45	42,29	15,39	42,22	15,58	42,15	15,76	42,08	15,94
46	43,23	15,73	43,16	15,92	43,09	16,11	43,02	16,30
47	44,17	16,08	44,10	16,27	44,02	16,46	43,95	16,65
48	45,11	16,42	45,03	16,62	44,96	16,81	44,89	17,01
49	46,05	16,76	45,97	16,96	45,90	17,16	45,82	17,36
50	46,99	17,10	46,91	17,31	46,83	17,51	46,76	17,72
Distance.	70 Deg.				69 Degrees			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

42

Distance.	20 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	47,93	17,44	47,85	17,65	47,77	17,86	47,69	18,07
52	48,86	17,79	48,79	18,00	48,71	18,21	48,61	18,42
53	49,80	18,13	49,73	18,34	49,64	18,56	49,56	18,78
54	50,74	18,47	50,66	18,69	50,58	18,91	50,50	19,13
55	51,68	18,81	51,60	19,04	51,52	19,26	51,43	19,49
56	52,62	19,15	52,54	19,38	52,45	19,61	52,37	19,84
57	53,56	19,50	53,48	19,73	53,39	19,96	53,30	20,20
58	54,50	19,84	54,42	20,08	54,33	20,31	54,24	20,55
59	55,44	20,18	55,35	20,42	55,26	20,66	55,17	20,90
60	56,36	20,52	56,29	20,77	56,20	21,01	56,11	21,26
61	57,32	20,86	57,23	21,11	57,14	21,36	57,04	21,61
62	58,26	21,21	58,17	21,46	58,07	21,71	57,98	21,97
63	59,20	21,55	59,11	21,81	59,01	22,06	58,91	22,32
64	60,14	21,89	60,04	22,15	59,95	22,41	59,85	22,67
65	61,08	22,23	60,98	22,50	60,88	22,76	60,79	23,03
66	62,02	22,57	61,92	22,84	61,82	23,11	61,72	23,38
67	62,96	22,92	62,86	23,19	62,76	23,46	62,66	23,74
68	63,90	23,26	63,80	23,54	63,69	23,82	63,59	24,09
69	64,84	23,60	64,74	23,88	64,63	24,17	64,53	24,45
70	65,78	23,94	65,67	24,23	65,57	24,52	65,46	24,80
71	66,72	24,28	66,61	24,57	66,50	24,87	66,40	25,15
72	67,66	24,63	67,55	24,92	67,44	25,22	67,33	25,51
73	68,60	24,97	68,49	25,27	68,38	25,57	68,27	25,86
74	69,54	25,31	69,43	25,61	69,31	25,92	69,20	26,22
75	70,48	25,65	70,36	25,96	70,25	26,27	70,14	26,57
76	71,42	25,99	71,30	26,31	71,19	26,62	71,07	26,93
77	72,36	26,34	72,24	26,65	72,12	26,97	72,01	27,28
78	73,30	26,68	73,18	27,00	73,06	27,31	72,94	27,63
79	74,24	27,02	74,12	27,34	74,00	27,67	73,88	27,99
80	75,18	27,36	75,06	27,69	74,93	28,02	74,81	28,34
81	76,12	27,70	75,99	28,04	75,87	28,37	75,75	28,70
82	77,05	28,05	76,93	28,38	76,81	28,72	76,68	29,05
83	77,99	28,39	77,87	28,73	77,74	29,07	77,62	29,41
84	78,93	28,73	78,81	29,07	78,68	29,42	78,55	29,76
85	79,87	29,07	79,75	29,42	79,62	29,77	79,49	30,11
86	80,81	29,41	80,68	29,77	80,55	30,12	80,42	30,47
87	81,75	29,76	81,62	30,11	81,49	31,47	81,36	30,82
88	82,69	30,10	82,56	30,46	82,43	31,82	82,29	31,18
89	83,63	30,44	83,50	30,81	83,36	31,17	83,23	31,53
90	84,57	30,78	84,44	31,15	84,30	31,52	84,16	31,89
91	85,51	31,12	85,38	31,50	85,24	31,87	85,10	32,24
92	86,45	31,47	86,31	31,84	86,17	32,22	86,03	32,60
93	87,39	31,81	87,25	32,19	87,11	32,57	86,97	32,95
94	88,33	32,15	88,19	32,54	88,05	32,92	87,90	33,30
95	89,27	32,49	89,13	32,88	88,98	33,27	88,84	33,66
96	90,21	32,83	90,07	33,23	89,92	33,62	89,77	34,01
97	91,15	33,18	91,00	33,57	90,86	33,97	90,71	34,37
98	92,09	33,52	91,94	33,92	91,79	34,32	91,64	34,72
99	93,03	33,86	92,88	34,27	92,73	34,67	92,58	35,07
100	93,97	34,20	93,82	34,61	93,67	35,02	93,51	35,42
Distance.	69 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
70 Deg.								

TRAVERSE TABLE.

Distance.	21 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,93	0,36	0,93	0,36	0,93	0,37	0,93	0,37
2	1,87	0,72	1,86	0,73	1,86	0,73	1,86	0,74
3	2,80	1,08	2,80	1,09	2,79	1,10	2,79	1,11
4	3,73	1,43	3,73	1,45	3,72	1,47	3,72	1,49
5	4,67	1,79	4,66	1,81	4,65	1,83	4,64	1,85
6	5,60	2,15	5,59	2,18	5,58	2,20	5,57	2,22
7	6,54	2,51	6,52	2,54	6,51	2,57	6,50	2,59
8	7,47	2,87	7,46	2,90	7,44	2,93	7,43	2,96
9	8,40	3,23	8,39	3,26	8,37	3,30	8,36	3,34
10	9,34	3,58	9,32	3,62	9,30	3,67	9,29	3,71
11	10,27	3,94	10,25	3,99	10,23	4,03	10,22	4,08
12	11,20	4,30	11,18	4,35	11,17	4,40	11,15	4,45
13	12,14	4,66	12,12	4,71	12,10	4,77	12,07	4,82
14	13,07	5,02	13,05	5,07	13,03	5,13	13,00	5,19
15	14,00	5,38	13,98	5,44	13,96	5,50	13,93	5,56
16	14,94	5,73	14,91	5,80	14,89	5,86	14,86	5,93
17	15,87	6,09	15,84	6,16	15,82	6,23	15,79	6,30
18	16,80	6,45	16,78	6,52	16,75	6,60	16,72	6,67
19	17,74	6,81	17,71	6,89	17,68	6,96	17,65	7,04
20	18,67	7,17	18,64	7,25	18,61	7,33	18,58	7,41
21	19,61	7,53	19,57	7,61	19,54	7,70	19,51	7,78
22	20,54	7,88	20,50	7,97	20,47	8,06	20,43	8,15
23	21,47	8,24	21,44	8,34	21,40	8,43	21,36	8,52
24	22,41	8,60	22,37	8,70	22,33	8,80	22,29	8,89
25	23,34	8,96	23,30	9,06	23,26	9,16	23,22	9,26
26	24,27	9,32	24,23	9,42	24,19	9,53	24,15	9,63
27	25,21	9,68	25,16	9,79	25,12	9,90	25,08	10,00
28	26,14	10,03	26,10	10,15	26,05	10,26	26,01	10,38
29	27,07	10,39	27,03	10,51	26,98	10,63	26,94	10,75
30	28,01	10,75	27,96	10,87	27,91	11,00	27,86	11,12
31	28,94	11,11	28,89	11,24	28,84	11,36	28,79	11,49
32	29,87	11,47	29,82	11,60	29,77	11,73	29,72	11,86
33	30,81	11,83	30,76	11,96	30,70	12,10	30,65	12,23
34	31,74	12,18	31,69	12,32	31,64	12,46	31,58	12,60
35	32,68	12,54	32,62	12,69	32,57	12,83	32,51	12,97
36	33,61	12,90	33,55	13,05	33,50	13,19	33,44	13,34
37	34,54	13,26	34,48	13,41	34,43	13,56	34,37	13,71
38	35,48	13,62	35,41	13,77	35,36	13,93	35,29	14,08
39	36,41	13,99	36,35	14,14	36,29	14,29	36,22	14,45
40	37,34	14,36	37,28	14,50	37,22	14,66	37,15	14,82
41	38,28	14,69	38,21	14,86	38,15	15,03	38,08	15,19
42	39,21	15,05	39,14	15,22	39,08	15,39	39,01	15,56
43	40,14	15,41	40,08	15,59	40,01	15,76	39,94	15,93
44	41,08	15,77	41,01	15,95	40,94	16,13	40,87	16,30
45	42,01	16,13	41,94	16,31	41,87	16,49	41,80	16,67
46	42,94	16,49	42,87	16,67	42,80	16,86	42,73	17,05
47	43,88	16,84	43,80	17,04	43,73	17,23	43,65	17,42
48	44,81	17,20	44,74	17,40	44,66	17,59	44,58	17,79
49	45,75	17,56	45,67	17,76	45,59	17,96	45,51	18,16
50	46,68	17,92	46,60	18,12	46,52	18,33	46,44	18,53
Distance.	69 Deg.		Dep.		Lat.		68 Degrees.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.

TRAVERSE TABLE.

44

Distance	21 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	47,61	18,28	47,53	18,49	47,45	18,69	47,37	18,90
52	48,54	18,64	48,47	18,85	48,38	19,06	48,30	19,27
53	49,48	18,99	49,40	19,21	49,31	19,43	49,23	19,64
54	50,41	19,35	50,33	19,57	50,24	19,79	50,16	20,01
55	51,35	19,71	51,26	19,94	51,17	20,16	51,09	20,38
56	52,28	20,07	52,19	20,30	52,10	20,52	52,01	20,75
57	53,21	20,43	53,13	20,66	53,03	20,89	52,94	21,12
58	54,15	20,79	54,06	21,02	53,96	21,26	53,87	21,49
59	55,08	21,14	55,00	21,38	54,90	21,62	54,80	21,86
60	56,02	21,50	56,92	21,75	55,83	21,99	55,73	22,23
61	56,95	21,86	56,85	22,11	56,76	22,36	56,66	22,60
62	57,88	22,22	57,79	22,47	57,69	22,73	57,59	22,98
63	58,82	22,58	58,72	22,83	58,62	23,09	58,52	23,35
64	59,75	22,94	59,65	23,20	59,55	23,46	59,44	23,72
65	60,68	23,29	60,58	23,56	60,48	23,82	60,37	24,09
66	61,62	23,65	61,51	23,92	61,41	24,19	61,30	24,46
67	62,55	24,01	62,45	24,28	62,34	24,59	62,23	24,83
68	63,48	24,37	63,38	24,65	63,27	24,92	63,16	25,28
69	64,42	24,73	64,31	25,01	64,20	25,29	64,09	25,57
70	65,35	25,09	65,24	25,37	65,13	25,66	65,02	25,94
71	66,28	25,44	66,17	25,73	66,06	26,02	65,95	26,31
72	67,22	25,80	67,11	26,10	66,99	26,39	66,88	26,68
73	68,15	26,16	68,04	26,46	67,92	26,76	67,80	27,05
74	69,09	26,52	68,97	26,82	68,85	27,12	68,73	27,42
75	70,02	26,88	69,90	27,18	69,78	27,49	69,66	27,79
76	70,95	27,24	70,83	27,55	70,71	27,85	70,59	28,16
77	71,89	27,59	71,77	27,91	71,64	28,22	71,52	28,52
78	72,82	27,95	72,70	28,27	72,57	28,59	72,45	28,90
79	73,75	28,31	73,63	28,62	73,50	28,95	73,38	29,27
80	74,69	28,67	74,56	29,00	74,43	29,32	74,31	29,65
81	75,62	29,03	75,49	29,36	75,37	29,69	75,23	30,02
82	76,55	29,39	76,43	29,72	76,30	30,05	76,16	30,39
83	77,49	29,75	77,36	30,08	77,23	30,42	77,09	30,76
84	78,42	30,10	78,29	30,45	78,16	30,79	78,02	31,13
85	79,35	30,46	79,22	30,81	79,09	31,15	78,95	31,50
86	80,29	30,82	80,15	31,17	80,02	31,52	79,88	31,87
87	81,22	31,16	81,09	31,53	80,95	31,89	80,81	32,24
88	82,15	31,54	82,02	31,89	81,88	32,25	81,74	32,61
89	83,09	31,90	82,95	32,26	82,81	32,62	82,66	32,98
90	84,02	32,25	83,88	32,62	83,74	32,99	83,59	33,35
91	84,96	32,61	84,81	32,98	84,67	33,35	84,52	33,72
92	85,89	32,97	85,75	33,35	85,60	33,72	85,45	34,09
93	86,82	33,33	86,68	33,71	86,53	34,09	86,38	34,46
94	87,76	33,69	87,61	34,07	87,46	34,45	87,31	34,83
95	88,69	34,04	88,54	34,43	88,39	34,82	88,24	35,20
96	89,62	34,40	89,47	34,80	89,32	35,18	89,17	35,57
97	90,56	34,76	90,41	35,16	90,25	35,55	90,10	35,94
98	91,49	35,11	91,34	35,52	91,18	35,92	91,02	36,31
99	92,42	35,48	92,27	35,88	92,11	36,28	91,95	36,68
100	93,36	35,84	93,20	36,22	93,04	36,65	92,88	37,06
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	69 Deg.				68 Degrees			

TRAVERSE TABLE.

Distance	22 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,93	0,38	0,93	0,38	0,92	0,38	0,92	0,39
2	1,85	0,75	1,85	0,76	1,85	0,77	1,84	0,77
3	2,78	1,12	2,78	1,14	2,77	1,15	2,77	1,16
4	3,71	1,50	3,70	1,52	3,70	1,53	3,69	1,55
5	4,64	1,87	4,63	1,89	4,62	1,91	4,61	1,93
6	5,56	2,25	5,55	2,27	5,54	2,30	5,53	2,32
7	6,49	2,62	6,48	2,65	6,47	2,68	6,46	2,71
8	7,42	2,00	7,40	3,03	7,39	3,06	7,38	3,09
9	8,35	3,37	8,33	3,41	8,32	3,44	8,30	3,48
10	9,27	3,75	9,26	3,79	9,24	3,83	9,22	3,87
11	10,20	4,12	10,18	4,17	10,16	4,21	10,14	4,25
12	11,13	4,50	11,11	4,54	11,09	4,59	11,07	4,64
13	12,05	4,87	12,03	4,92	12,01	4,97	11,99	5,03
14	12,98	5,24	12,96	5,30	12,94	5,36	12,91	5,11
15	13,91	5,62	13,88	5,68	13,86	5,74	13,83	5,80
16	14,84	5,99	14,81	6,06	14,78	6,12	14,76	6,19
17	15,76	6,37	15,73	6,44	15,71	6,51	15,68	6,57
18	16,69	6,74	16,66	6,82	16,66	6,89	16,60	6,96
19	17,62	7,12	17,59	7,19	17,55	7,27	17,52	7,35
20	18,54	7,49	18,51	7,57	18,48	7,65	18,44	7,73
21	19,47	7,87	19,44	7,95	19,40	8,04	19,37	8,12
22	20,40	8,24	20,36	8,33	20,33	8,42	20,29	8,51
23	21,33	8,62	21,29	8,71	21,25	8,80	21,21	8,89
24	22,25	8,99	22,21	9,09	22,17	9,18	22,13	9,28
25	23,18	9,37	23,14	9,47	23,10	9,57	23,06	9,67
26	24,11	9,74	24,06	9,84	24,02	9,95	23,98	10,05
27	25,03	10,11	24,99	10,22	24,95	10,33	24,90	10,44
28	25,96	10,49	25,92	10,60	25,87	10,72	25,82	10,83
29	26,89	10,86	26,84	10,98	26,79	11,10	26,74	11,21
30	27,82	11,24	27,77	11,36	27,72	11,48	27,67	11,60
31	28,74	11,61	28,69	11,74	28,64	11,86	28,59	11,99
32	29,67	11,99	29,62	12,12	29,36	12,25	29,51	12,38
33	30,60	12,36	30,54	12,50	30,49	12,63	30,43	12,76
34	31,52	12,74	31,47	12,87	31,41	13,01	31,36	13,15
35	32,45	13,11	32,39	13,25	32,34	13,39	32,28	13,54
36	33,38	13,49	33,33	13,63	33,26	13,78	33,20	13,92
37	34,31	13,86	34,25	14,01	34,18	14,16	34,12	14,31
38	35,23	14,24	35,17	14,39	35,11	14,54	35,04	14,69
39	36,16	14,61	36,10	14,77	36,13	14,92	35,97	15,08
40	37,09	14,98	37,02	15,15	36,96	15,30	36,89	15,47
41	38,01	15,36	37,95	15,52	37,88	15,69	37,81	15,86
42	38,94	15,73	38,87	15,90	38,80	16,07	38,73	16,24
43	39,87	16,10	39,80	16,28	39,73	16,45	39,66	16,63
44	40,80	16,48	40,72	16,66	40,65	16,84	40,58	17,02
45	41,72	16,86	41,65	17,04	41,57	17,22	41,50	17,40
46	42,65	17,23	42,58	17,42	42,50	17,60	42,42	17,79
47	43,58	17,61	43,50	17,80	43,42	17,99	43,34	18,18
48	44,51	17,98	44,43	18,18	44,35	18,37	44,27	18,56
49	45,43	18,36	45,35	18,55	45,27	18,75	45,19	18,95
50	46,36	18,73	46,28	18,93	46,19	19,13	46,11	19,34
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	68 Deg.		67 Degrees					

TRAVERSE TABLE.

46

Distance	22 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	47,29	19,11	47,20	19,31	47,12	19,52	47,03	19,72
52	48,21	19,48	48,13	19,69	48,04	19,90	47,95	20,11
53	49,14	19,86	49,05	20,07	48,97	20,18	48,88	20,50
54	50,07	20,23	49,98	20,45	49,89	20,66	49,80	20,88
55	51,00	20,60	50,90	20,83	50,81	21,05	50,72	21,27
56	51,92	20,98	51,83	21,20	51,74	21,43	51,64	21,66
57	52,85	21,35	52,76	21,58	52,65	21,81	52,57	22,04
58	53,77	21,73	53,68	21,96	53,59	22,20	53,49	22,43
59	54,70	22,10	54,61	22,34	54,51	22,58	54,41	22,82
60	55,63	22,48	55,53	22,72	55,43	22,96	55,32	23,20
61	56,56	22,85	56,46	23,10	56,36	23,34	56,25	23,59
62	57,49	23,23	57,38	23,48	57,28	23,73	57,18	23,98
63	58,41	23,60	58,31	23,86	58,21	24,11	58,10	24,37
64	59,34	23,98	59,23	24,23	59,13	24,49	59,02	24,75
65	60,27	24,35	60,16	24,61	60,05	24,87	59,94	25,14
66	61,19	24,72	61,08	24,89	60,98	25,26	60,87	25,52
67	62,12	25,10	62,01	25,37	61,90	25,63	61,79	25,91
68	63,05	25,47	62,94	25,75	62,82	26,02	62,71	26,30
69	63,98	25,85	63,86	26,13	63,75	26,41	63,63	26,68
70	64,90	26,22	64,79	26,51	64,67	26,79	64,55	27,07
71	65,83	26,60	65,71	26,89	65,60	27,17	65,48	27,46
72	66,76	26,97	66,64	27,26	66,52	27,55	66,40	27,84
73	67,69	27,35	67,57	27,64	67,44	27,94	67,32	28,22
74	68,61	27,72	68,49	28,02	68,37	28,32	68,24	28,62
75	69,54	28,10	69,42	28,40	69,29	28,70	69,17	29,00
76	70,47	28,47	70,34	28,78	70,21	29,08	70,09	29,39
77	71,39	28,85	71,27	29,16	71,14	29,47	71,01	29,78
78	72,32	29,22	72,19	29,54	72,06	29,85	71,93	30,16
79	73,25	29,59	73,12	29,91	72,99	30,22	72,85	30,55
80	74,17	29,97	74,04	30,29	73,91	30,61	73,78	30,94
81	75,10	30,34	74,97	30,67	74,83	31,00	74,70	31,32
82	76,03	30,72	75,89	31,05	75,76	31,38	75,62	31,71
83	76,96	31,09	76,82	31,43	76,68	31,76	76,54	32,09
84	77,88	31,47	77,75	31,81	77,61	32,15	77,47	32,48
85	78,81	31,84	78,67	32,19	78,53	32,53	78,39	32,87
86	79,74	32,22	79,60	32,56	79,45	32,91	79,31	33,26
87	80,66	32,59	80,52	32,94	80,38	33,29	80,23	33,64
88	81,59	32,97	81,45	33,32	81,30	33,68	81,16	34,03
89	82,52	33,34	82,37	33,70	82,23	34,06	82,08	34,42
90	83,45	33,72	83,30	34,08	83,15	34,44	83,00	34,81
91	84,37	34,09	84,22	34,46	84,07	34,82	83,92	35,19
92	85,30	34,46	85,15	34,84	85,00	35,21	84,84	35,57
93	86,23	34,84	86,08	35,22	85,92	35,59	85,77	35,97
94	87,16	35,21	87,00	35,59	86,85	35,97	86,69	36,35
95	88,08	35,59	87,92	35,97	87,77	36,35	87,61	36,74
96	89,01	35,96	88,85	36,35	88,69	36,74	88,53	37,12
97	89,94	36,34	89,78	36,73	89,62	37,12	89,45	37,51
98	90,86	36,71	90,70	37,11	90,54	37,50	90,38	37,90
99	91,79	37,09	91,63	37,49	91,46	37,89	91,30	38,28
100	92,72	37,46	92,55	37,87	92,39	38,27	92,22	38,67
Distance.	Dep.		Lat.		Dep.		Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
68 Deg.								
67 Degrees								

TRAVERSE TABLE.

Distance	23 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,92	0,39	0,92	0,40	0,92	0,40	0,92	0,40
2	1,84	0,78	1,84	0,79	1,83	0,80	1,83	0,81
3	2,76	1,17	2,76	1,18	2,75	1,20	2,75	1,21
4	3,68	1,56	3,68	1,58	3,67	1,60	3,66	1,61
5	4,60	1,95	4,59	1,97	4,59	1,99	4,58	2,01
6	5,52	2,34	5,51	2,37	5,50	2,39	5,49	2,42
7	6,44	2,74	6,43	2,76	6,42	2,79	6,41	2,82
8	7,36	3,13	7,35	3,16	7,34	3,19	7,32	3,22
9	8,29	3,52	8,27	3,55	8,25	3,59	8,24	3,63
10	9,21	3,91	9,19	3,95	9,17	3,99	9,15	4,03
11	10,13	4,30	10,11	4,34	10,09	4,39	10,07	4,43
12	11,05	4,70	11,03	4,74	11,01	4,79	10,98	4,83
13	11,97	5,08	11,94	5,13	11,92	5,18	11,90	5,24
14	12,89	5,47	12,86	5,53	12,84	5,58	12,81	5,64
15	13,81	5,86	13,78	5,92	13,76	5,98	13,73	6,04
16	14,73	6,25	14,70	6,32	14,67	6,38	14,65	6,44
17	15,65	6,64	15,62	6,71	15,59	6,78	15,56	6,85
18	16,57	7,03	16,54	7,11	16,51	7,18	16,48	7,25
19	17,49	7,42	17,46	7,50	17,42	7,58	17,39	7,65
20	18,41	7,82	18,38	7,90	18,34	7,98	18,31	8,06
21	19,33	8,21	19,30	8,29	19,26	8,37	19,22	8,46
22	20,25	8,60	20,21	8,69	20,18	8,77	20,14	8,86
23	21,17	8,99	21,13	9,08	21,09	9,17	21,05	9,26
24	22,09	9,38	22,05	9,47	22,01	9,57	21,97	9,66
25	23,01	9,77	22,97	9,87	22,93	9,97	22,88	10,07
26	23,93	10,16	23,89	10,26	23,84	10,37	23,80	10,47
27	24,85	10,55	24,81	10,66	24,76	10,77	24,71	10,87
28	25,77	10,94	25,73	11,45	25,68	11,16	25,63	11,28
29	26,70	11,33	26,65	11,55	26,60	11,56	26,54	11,68
30	27,62	11,72	27,56	11,84	27,51	11,96	27,46	12,08
31	28,54	12,11	28,48	12,24	28,43	12,36	28,37	12,49
32	29,46	12,50	29,40	12,63	29,35	12,76	29,29	12,89
33	30,38	12,89	30,32	13,03	30,26	13,16	30,21	13,29
34	31,30	13,28	31,24	13,42	31,18	13,56	31,12	13,69
35	32,22	13,68	32,16	13,82	32,10	13,96	32,04	14,10
36	33,14	14,07	33,08	14,21	33,01	14,36	32,95	14,50
37	34,06	14,46	34,00	14,61	33,93	14,75	33,87	14,90
38	34,98	14,85	34,91	15,00	34,85	15,15	34,78	15,30
39	35,90	15,24	35,83	15,40	35,77	15,55	35,70	15,71
40	36,82	15,63	36,75	15,79	36,68	15,95	36,61	16,11
41	37,74	16,02	37,67	16,19	37,60	16,35	37,53	16,51
42	38,66	16,41	38,59	16,59	38,53	16,75	38,44	16,92
43	39,58	16,80	39,51	16,97	39,43	17,15	39,36	17,32
44	40,50	17,19	40,43	17,37	40,35	17,54	40,27	17,72
45	41,42	17,58	41,35	17,76	41,27	17,94	41,19	18,12
46	42,34	17,97	42,27	18,16	42,18	18,34	42,10	18,53
47	43,26	18,37	43,18	18,55	43,10	18,74	43,02	18,93
48	44,18	18,76	44,10	18,95	44,02	19,14	43,93	19,33
49	45,11	19,15	45,02	19,34	44,94	19,54	44,85	19,73
50	46,03	19,54	45,94	19,74	45,85	19,94	45,77	20,14
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	67 Deg.				66 Degrees			

TRAVERSE TABLE.

48

Distance	23 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	46,95	19,93	46,86	20,13	46,77	20,34	46,68	20,54
52	47,87	20,32	47,78	20,53	47,69	20,74	47,60	20,94
53	48,79	20,71	48,70	20,92	48,60	21,13	48,51	21,35
54	49,71	21,10	49,62	21,32	49,52	21,53	49,43	21,75
55	50,63	21,49	50,53	21,71	50,44	21,93	50,34	22,15
56	51,55	21,88	51,45	22,11	51,36	22,33	51,26	22,55
57	52,46	22,27	52,37	22,50	52,27	22,73	52,17	22,96
58	53,39	22,66	53,29	22,90	53,19	23,13	53,09	23,36
59	54,31	23,05	54,21	23,29	54,11	23,53	54,00	23,76
60	55,23	23,44	55,13	23,68	55,02	23,93	54,92	24,17
61	56,15	23,83	56,05	24,08	55,94	24,32	55,83	24,57
62	57,07	24,22	56,97	24,47	56,86	24,72	56,75	24,97
63	57,99	24,62	57,88	24,87	57,78	25,12	57,66	25,37
64	58,91	25,01	58,80	25,26	58,69	25,52	58,58	25,78
65	59,83	25,40	59,72	25,66	59,61	25,92	59,49	26,18
66	60,75	25,79	60,64	26,05	60,53	26,32	60,41	26,58
67	61,67	26,18	61,56	26,45	61,44	26,72	61,32	26,99
68	62,59	26,57	62,48	26,84	62,36	27,12	62,24	27,39
69	63,52	26,96	63,40	27,23	63,28	27,52	63,15	27,79
70	64,44	27,35	64,32	27,63	64,19	27,91	64,07	28,19
71	65,36	27,74	65,23	28,03	65,11	28,31	64,99	28,60
72	66,28	28,13	66,15	28,42	66,03	28,71	65,90	29,00
73	67,20	28,52	67,07	28,82	66,95	29,11	66,82	29,40
74	68,12	28,91	67,99	29,21	67,86	29,50	67,73	29,81
75	69,04	29,30	68,91	29,61	68,78	29,91	68,65	30,21
76	69,96	29,69	69,83	30,00	69,70	30,31	69,56	30,61
77	70,88	30,09	70,75	30,40	70,61	30,71	70,48	31,01
78	71,80	30,48	71,67	30,79	71,53	31,11	71,39	31,42
79	72,72	30,87	72,59	31,19	72,45	31,50	72,31	31,82
80	73,64	31,26	73,50	31,58	73,37	31,90	73,23	32,22
81	74,56	31,65	74,42	31,97	74,28	32,30	74,14	32,62
82	75,48	32,04	75,34	32,37	75,20	32,70	75,06	33,03
83	76,40	32,43	76,26	32,76	76,12	33,10	75,97	33,43
84	77,32	32,82	77,18	33,15	77,03	33,50	76,89	33,83
85	78,24	33,21	78,10	33,55	77,95	33,90	77,80	34,24
86	79,16	33,60	79,02	33,95	78,87	34,29	78,71	34,64
87	80,08	34,00	79,94	34,34	79,78	34,69	79,63	35,04
88	81,00	34,39	80,86	34,73	80,71	35,09	80,55	35,44
89	81,93	34,78	81,77	35,13	81,62	35,49	81,46	35,85
90	82,85	35,17	82,69	35,53	82,54	35,89	82,38	36,25
91	83,77	35,56	83,61	35,92	83,46	36,29	83,29	36,65
92	84,69	35,95	84,53	36,32	84,37	36,69	84,21	37,05
93	85,61	36,34	85,45	36,71	85,29	37,09	85,12	37,46
94	86,53	36,73	86,37	37,11	86,20	37,48	86,04	37,86
95	87,45	37,12	87,29	37,50	87,12	37,88	86,95	38,26
96	88,37	37,51	88,21	37,90	88,04	38,28	87,87	38,67
97	89,29	37,90	89,12	38,29	88,95	38,68	88,78	39,07
98	90,21	38,29	90,04	38,69	89,87	39,08	89,70	39,47
99	91,13	38,69	90,96	39,08	90,79	39,48	90,61	39,88
100	92,05	39,07	91,88	39,47	91,71	39,88	91,53	40,28
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	67 Deg.				66 Degrees			

TRAVERSE TABLE.

Distance.	24 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,91	0,41	0,91	0,41	0,91	0,42	0,91	0,42
2	1,83	0,81	1,82	0,82	1,82	0,83	1,82	0,84
3	2,74	1,22	2,74	1,23	2,73	1,24	2,72	1,26
4	3,65	1,63	3,65	1,64	3,64	1,66	3,63	1,68
5	4,57	2,03	4,56	2,05	4,55	2,07	4,54	2,09
6	5,48	2,44	5,47	2,46	5,46	2,49	5,45	2,51
7	6,40	2,85	6,38	2,88	6,37	2,90	6,36	2,93
8	7,31	3,25	7,29	3,29	7,28	3,32	7,27	3,35
9	8,22	3,66	8,21	3,70	8,19	3,73	8,17	3,77
10	9,14	4,07	9,12	4,11	9,10	4,15	9,08	4,19
11	10,05	4,47	10,03	4,52	10,01	4,56	9,99	4,61
12	10,96	4,88	10,94	4,93	10,92	4,98	10,90	5,02
13	11,88	5,29	11,85	5,34	11,83	5,39	11,81	5,44
14	12,79	5,69	12,76	5,75	12,74	5,81	12,71	5,86
15	13,70	6,10	13,68	6,16	13,65	6,22	13,62	6,28
16	14,62	6,51	14,59	6,57	14,56	6,64	14,53	6,70
17	15,53	6,91	15,50	6,98	15,47	7,05	15,44	7,12
18	16,44	7,32	16,41	7,39	16,38	7,47	16,35	7,54
19	17,36	7,73	17,32	7,80	17,29	7,88	17,25	7,96
20	18,27	8,14	18,24	8,21	18,20	8,29	18,16	8,37
21	19,18	8,54	19,15	8,63	19,11	8,71	19,07	8,79
22	20,10	8,95	20,06	9,04	20,02	9,12	19,98	9,21
23	21,01	9,36	20,97	9,45	20,94	9,55	20,89	9,63
24	21,93	9,76	21,88	9,86	21,85	9,96	21,80	10,05
25	22,84	10,17	22,79	10,27	22,75	10,38	22,70	10,47
26	23,75	10,58	23,71	10,68	23,66	10,79	23,61	10,89
27	24,67	10,98	24,62	11,09	24,57	11,21	24,52	11,31
28	25,58	11,39	25,53	11,50	25,48	11,62	25,43	11,73
29	26,49	11,80	26,44	11,91	26,39	12,04	26,34	12,14
30	27,41	12,20	27,35	12,32	27,30	12,44	27,24	12,56
31	28,32	12,61	28,26	12,73	28,21	12,86	28,15	12,98
32	29,23	13,02	29,18	13,14	29,12	13,27	29,06	13,40
33	30,15	13,42	30,09	13,55	30,03	13,69	29,97	13,82
34	31,06	13,83	31,00	13,97	30,94	14,10	30,88	14,24
35	31,97	14,24	31,91	14,38	31,85	14,51	31,78	14,66
36	32,89	14,64	32,82	14,79	32,76	14,93	32,69	15,07
37	33,80	15,05	33,73	15,20	33,67	15,35	33,60	15,49
38	34,72	15,46	34,65	15,61	34,58	15,76	34,51	15,91
39	35,63	15,86	35,56	16,02	35,49	16,18	35,42	16,33
40	36,54	16,27	36,47	16,43	36,40	16,59	36,33	16,75
41	37,46	16,68	37,38	16,84	37,31	17,00	37,23	17,17
42	38,37	17,08	38,29	17,25	38,22	17,42	38,14	17,58
43	39,28	17,49	39,20	17,66	39,13	17,83	39,05	18,00
44	40,20	17,90	40,12	18,07	40,04	18,25	39,96	18,42
45	41,11	18,30	41,04	18,48	40,95	18,66	40,87	17,84
46	42,02	18,71	41,94	18,89	41,86	19,08	41,77	19,26
47	42,94	19,12	42,85	19,30	42,77	19,49	42,68	10,68
48	43,85	19,52	43,76	19,72	43,68	19,91	43,59	20,10
49	44,76	19,93	44,68	20,13	44,59	20,32	44,50	20,52
50	45,68	20,34	45,59	20,54	45,50	20,74	45,41	20,93
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	66 Deg.				65 Degrees			

TRAVERSE TABLE.

50

Distance.	24 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	46,59	20,74	46,50	20,95	46,41	21,15	46,32	21,35
52	47,51	21,15	47,41	21,36	47,32	21,57	47,22	21,77
53	48,42	21,56	48,32	21,77	48,23	21,98	48,13	22,19
54	49,33	21,96	49,23	22,18	49,14	22,40	49,04	22,61
55	50,25	22,37	50,15	22,59	50,05	22,81	49,95	23,03
56	51,16	22,78	51,06	23,00	50,96	23,23	50,86	23,45
57	52,07	23,18	51,97	23,41	51,87	23,64	51,76	23,87
58	52,98	23,59	52,88	23,82	52,78	24,06	52,68	24,29
59	53,90	24,00	53,79	24,23	53,69	24,47	53,58	24,70
60	54,81	24,40	54,71	24,64	54,60	24,88	54,49	25,12
61	55,73	24,81	55,62	25,06	55,51	25,30	55,40	25,54
62	56,64	25,22	56,53	25,47	56,42	25,71	56,30	25,96
63	57,56	25,63	57,44	25,88	57,33	26,13	57,21	26,38
64	58,47	26,03	58,35	26,29	58,24	26,54	58,12	26,80
65	59,38	26,44	59,27	26,70	59,15	26,96	59,03	27,22
66	60,30	26,85	60,18	27,11	60,06	27,37	59,94	27,63
67	61,21	27,26	61,09	27,52	60,97	27,79	60,84	28,05
68	62,13	27,66	62,00	27,93	61,88	28,20	61,75	28,47
69	63,04	28,07	62,91	28,34	62,79	28,62	62,66	28,89
70	63,95	28,47	63,82	28,75	63,70	29,03	63,57	29,31
71	64,86	28,88	64,74	29,16	64,61	29,44	64,48	29,73
72	65,78	29,29	65,65	29,57	65,52	29,86	65,39	30,14
73	66,69	29,69	66,56	29,98	66,43	30,27	66,29	30,56
74	67,61	30,10	67,47	30,39	67,34	30,69	67,20	30,98
75	68,52	30,51	68,39	30,81	68,25	31,10	68,11	31,40
76	69,43	30,91	69,30	31,22	69,16	31,52	69,02	31,82
77	70,35	31,32	70,21	31,63	70,07	31,93	69,93	32,24
78	71,26	31,73	71,12	32,04	70,98	32,35	70,83	32,66
79	72,18	32,14	72,03	32,45	71,89	32,76	71,74	33,08
80	73,08	32,54	72,94	32,86	72,80	33,18	72,65	33,49
81	74,00	32,95	73,85	33,27	73,71	33,59	73,56	33,91
82	74,91	33,35	74,77	33,68	74,62	34,00	74,47	34,33
83	75,83	33,76	75,68	34,09	75,53	34,42	75,38	34,75
84	76,74	34,17	76,59	34,50	76,44	34,84	76,28	35,17
85	77,65	34,57	77,50	34,91	77,35	35,25	77,19	35,59
86	78,57	34,98	78,41	35,32	78,26	35,67	78,10	36,01
87	79,48	35,39	79,33	35,74	79,17	36,08	79,01	36,43
88	80,40	35,80	80,24	36,15	80,08	36,50	79,92	36,85
89	81,31	36,20	81,15	36,56	80,99	36,91	80,83	37,26
90	82,22	36,61	82,06	36,97	81,90	37,32	81,73	37,68
91	83,13	37,01	82,97	37,38	82,81	37,74	82,64	38,10
92	84,05	37,42	83,88	37,79	83,72	38,15	83,55	38,52
93	84,96	37,83	84,79	38,20	84,63	38,57	84,46	38,94
94	85,84	38,24	85,71	38,61	85,54	38,98	85,37	39,36
95	86,79	38,61	86,62	39,02	86,45	39,40	86,27	39,76
96	87,70	39,02	87,52	39,43	87,36	39,81	87,18	40,18
97	88,62	39,43	88,44	39,84	88,27	40,23	88,09	40,60
98	89,53	39,83	89,35	40,25	89,18	40,64	89,00	41,02
99	90,42	40,24	90,26	40,66	90,09	41,06	89,91	41,44
100	91,36	40,67	91,18	41,07	91,00	41,47	90,81	41,87
Distance.	66 Deg.		65 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

Distance.	25 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,91	0,42	0,90	0,43	0,90	0,43	0,90	0,43
2	1,81	0,85	1,81	0,85	1,81	0,86	1,80	0,87
3	2,72	1,27	2,71	1,28	2,71	1,29	2,70	1,30
4	3,63	1,69	3,62	1,71	3,61	1,72	3,60	1,74
5	4,54	2,11	4,52	2,13	4,51	2,15	4,50	2,17
6	5,44	2,54	5,43	2,56	5,42	2,58	5,40	2,64
7	6,34	2,96	6,33	2,99	6,32	3,01	6,31	3,04
8	7,25	3,38	7,24	3,41	7,22	3,44	7,21	3,48
9	8,16	3,80	8,14	3,84	8,12	3,88	8,11	3,91
10	9,06	4,23	9,05	4,27	9,03	4,31	9,01	4,35
11	9,97	4,65	9,95	4,69	9,93	4,74	9,91	4,78
12	10,88	5,07	10,85	5,12	10,83	5,17	10,81	5,21
13	11,78	5,49	11,76	5,55	11,73	5,60	11,71	5,65
14	12,69	5,92	12,66	5,97	12,64	6,03	12,61	6,08
15	13,59	6,34	13,57	6,40	13,54	6,46	13,51	6,52
16	14,50	6,76	14,47	6,83	14,44	6,89	14,41	6,95
17	15,41	7,19	15,37	7,25	15,35	7,32	15,31	7,39
18	16,31	7,61	16,28	7,68	16,25	7,75	16,21	7,82
19	17,22	8,03	17,18	8,11	17,15	8,18	17,11	8,26
20	18,13	8,45	18,09	8,53	18,05	8,61	18,01	8,69
21	19,03	8,88	18,99	8,96	18,96	9,04	18,92	9,12
22	19,94	9,30	19,90	9,39	19,86	9,47	19,82	9,56
23	20,84	9,72	20,80	9,81	20,76	9,90	20,72	9,99
24	21,75	10,14	21,71	10,24	21,66	10,33	21,62	10,43
25	22,66	10,57	22,61	10,67	22,57	10,77	22,52	10,86
26	23,56	10,99	23,51	11,09	23,47	11,20	23,42	11,30
27	24,47	11,41	24,41	11,52	24,37	11,63	24,32	11,73
28	25,37	11,84	25,32	11,95	25,28	12,06	25,22	12,17
29	26,28	12,26	26,23	12,37	26,18	12,49	26,12	12,60
30	27,19	12,68	27,13	12,80	27,08	12,92	27,02	13,03
31	28,10	13,10	28,04	13,22	27,98	13,35	27,92	13,47
32	29,00	13,53	28,94	13,65	28,88	13,78	28,82	13,90
33	29,91	13,95	29,85	14,08	29,79	14,21	29,72	14,34
34	30,81	14,37	30,75	14,51	30,69	14,64	30,62	14,77
35	31,72	14,79	31,65	14,93	31,59	15,07	31,53	15,21
36	32,63	15,22	32,56	15,36	32,50	15,50	32,43	15,64
37	33,53	15,64	33,46	15,79	33,40	16,93	33,33	16,08
38	34,44	16,06	34,37	16,21	34,30	16,36	34,23	16,51
39	35,34	16,49	35,28	16,64	35,21	16,79	35,13	16,94
40	36,25	16,91	36,18	17,07	36,10	17,22	36,03	17,38
41	37,16	17,33	37,08	17,49	37,01	17,65	36,93	17,81
42	38,06	17,75	37,99	17,92	37,92	18,08	37,83	18,25
43	38,97	18,18	38,89	18,34	38,82	18,51	38,73	18,68
44	39,88	18,60	39,79	18,77	39,72	18,94	39,63	19,12
45	40,78	19,02	40,70	19,20	40,62	19,38	40,53	19,55
46	41,69	19,45	41,60	19,63	41,52	19,81	41,43	19,99
47	42,59	19,87	42,51	20,05	42,42	20,24	42,33	20,42
48	43,50	20,29	43,41	20,48	43,32	20,67	43,23	20,85
49	44,41	20,72	44,31	20,91	44,23	21,10	44,13	21,29
50	45,32	21,13	45,22	21,33	45,14	21,53	45,04	21,72
Distance.	Dep.		Lat.		Dep.		Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
65 Deg.		64 Degrees.						

TRAVERSE TABLE.

52

Distance	25 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
51	46,22	21,55	46,13	21,76	46,03	21,96	45,94	22,16
52	47,13	21,98	47,03	22,18	46,94	22,39	46,84	22,59
53	48,03	22,40	47,94	22,61	47,84	22,82	47,74	23,03
54	48,95	22,82	48,84	23,04	48,74	23,25	48,64	23,46
55	49,85	23,24	49,74	23,46	49,65	23,68	49,54	23,90
56	50,75	23,67	50,65	23,89	50,55	24,11	50,44	24,33
57	51,66	24,09	51,55	24,32	51,45	24,54	51,34	24,77
58	52,56	24,52	52,45	24,65	52,35	24,97	52,24	25,20
59	53,47	24,94	53,36	25,17	53,26	25,41	53,14	25,63
60	54,38	25,36	54,27	25,59	54,16	25,83	54,04	26,07
61	55,29	25,78	55,17	26,02	55,06	26,26	54,94	26,51
62	56,19	26,20	56,08	26,45	55,96	26,69	55,84	26,94
63	57,10	26,63	56,98	26,88	56,86	27,12	56,75	27,37
64	58,00	27,05	57,88	27,30	57,77	27,56	57,65	27,80
65	58,91	27,47	58,79	27,73	58,67	27,99	58,55	28,24
66	59,82	27,90	59,69	28,16	59,57	28,42	59,45	28,67
67	60,72	28,32	60,60	28,58	60,48	28,85	60,35	29,11
68	61,63	28,74	61,50	29,01	61,38	29,38	61,25	29,54
69	62,53	29,16	62,40	29,44	62,28	29,71	62,15	29,97
70	63,44	29,58	63,31	29,86	63,18	30,14	63,05	30,41
71	64,35	30,01	64,22	30,29	64,08	30,57	63,95	30,85
72	65,25	30,43	65,12	30,72	64,99	30,99	64,85	31,28
73	66,16	30,85	66,02	31,15	65,89	31,43	65,75	31,71
74	67,07	31,28	66,94	31,58	66,79	31,86	66,65	32,15
75	67,97	31,70	67,84	32,00	67,70	32,29	67,55	32,58
76	68,88	32,12	68,75	32,42	68,60	32,72	68,46	33,02
77	69,78	32,50	69,65	32,85	69,50	32,15	69,36	33,45
78	70,69	32,97	70,55	33,28	70,41	33,58	70,26	33,88
79	71,60	33,39	71,46	33,70	71,31	33,92	71,16	34,32
80	72,51	33,81	72,36	34,13	72,21	34,44	72,06	34,76
81	73,41	34,23	73,26	34,55	73,11	34,87	72,96	35,19
82	74,32	34,66	74,17	34,98	74,01	35,30	73,86	35,62
83	75,22	35,08	75,07	35,41	74,92	35,73	74,76	36,06
84	76,13	35,50	75,97	35,83	75,82	36,17	75,66	36,49
85	77,04	35,93	76,88	36,26	76,72	36,60	76,56	36,93
86	77,94	36,35	77,78	36,69	77,63	37,03	77,46	37,36
87	78,85	36,77	78,69	37,12	78,53	37,46	78,36	37,79
88	79,75	37,19	79,59	37,54	79,43	37,89	79,26	38,23
89	80,66	37,62	80,49	37,97	80,33	38,33	80,16	38,66
90	81,57	38,04	81,40	38,39	81,23	38,75	81,06	39,10
91	82,47	38,46	82,31	38,82	82,14	39,18	81,96	39,54
92	83,38	38,88	83,21	39,25	83,04	39,61	82,87	39,97
93	84,29	39,31	84,11	39,67	83,94	40,04	83,77	40,40
94	85,19	39,73	85,02	40,10	84,85	40,47	84,66	40,84
95	86,10	40,15	85,92	40,53	85,75	40,90	85,57	41,27
96	87,06	40,57	86,83	40,95	86,65	41,33	86,47	41,71
97	87,91	41,00	87,73	41,38	87,55	41,73	87,37	42,14
98	88,82	41,42	88,63	41,81	88,46	42,19	88,27	42,57
99	89,73	41,84	89,54	42,23	89,36	42,63	89,17	43,01
100	90,63	42,26	90,45	42,66	90,26	43,05	90,07	43,45
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	65 Deg.		64 Degrees					

TRAVERSE TABLE.

Distance	26 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
1	0,90	0,44	0,90	0,44	0,90	0,45	0,89	0,45
2	1,80	0,88	1,79	0,89	1,79	0,89	1,79	0,90
3	2,70	1,32	2,69	1,33	2,69	1,34	2,68	1,35
4	3,60	1,75	3,59	1,77	3,58	1,79	3,57	1,80
5	4,49	2,19	4,48	2,21	4,48	2,23	4,47	2,25
6	5,39	2,63	5,38	2,65	5,37	2,68	5,36	2,70
7	6,22	3,07	6,28	3,10	6,27	3,12	6,25	3,15
8	7,19	3,51	7,18	3,54	7,16	3,57	7,14	3,60
9	8,09	3,95	8,07	3,98	8,05	4,02	8,04	4,05
10	8,99	4,38	8,97	4,42	8,95	4,46	8,93	4,50
11	9,89	4,82	9,87	4,87	9,84	4,91	9,82	4,95
12	10,79	5,26	10,76	5,31	10,74	5,35	10,72	5,40
13	11,68	5,70	11,66	5,75	11,63	5,80	11,61	5,85
14	12,58	6,14	12,56	6,19	12,53	6,25	12,50	6,30
15	13,48	6,58	13,45	6,63	13,42	6,69	13,40	6,75
16	14,38	7,01	14,35	7,08	14,32	7,14	14,29	7,20
17	15,28	7,45	15,25	7,52	15,21	7,59	15,18	7,65
18	16,18	7,89	16,14	7,96	16,11	8,03	16,07	8,10
19	17,08	8,33	17,04	8,40	17,00	8,48	16,97	8,55
20	17,98	8,77	17,94	8,85	17,90	8,92	17,86	9,00
21	18,88	9,21	18,83	9,29	18,79	9,37	18,75	9,45
22	19,77	9,64	19,73	9,73	19,69	9,82	19,65	9,90
23	20,67	10,08	20,63	10,17	20,58	10,26	20,54	10,35
24	21,57	10,52	21,52	10,62	21,48	10,71	21,43	10,80
25	22,47	10,96	22,42	11,06	22,37	11,16	22,33	11,25
26	23,37	11,40	23,32	11,50	23,27	11,60	23,22	11,70
27	24,27	11,84	24,22	11,94	24,16	12,05	24,11	12,15
28	25,17	12,27	25,11	12,39	25,06	12,49	25,00	12,60
29	26,07	12,71	26,01	12,83	25,95	12,94	25,90	13,05
30	26,96	13,15	26,91	13,27	26,85	13,39	26,79	13,50
31	27,86	13,59	27,80	13,71	27,74	13,83	27,68	13,95
32	28,76	14,03	28,70	14,15	28,64	14,28	28,58	14,40
33	29,66	14,47	29,60	14,60	29,53	14,73	29,47	14,85
34	30,56	14,90	30,49	15,04	30,43	15,17	30,36	15,30
35	31,46	15,34	31,39	15,48	31,32	15,62	31,25	15,75
36	32,36	15,78	32,29	15,92	32,22	16,06	32,15	16,30
37	33,26	16,22	33,18	16,37	33,11	16,51	33,04	16,65
38	34,15	16,66	34,08	16,81	34,01	16,96	33,93	17,10
39	35,05	17,10	34,98	17,25	34,90	17,40	34,83	17,55
40	35,95	17,54	35,88	17,69	35,80	17,85	35,72	18,00
41	36,85	17,97	36,77	18,13	36,69	18,29	36,61	18,45
42	37,75	18,41	37,67	18,58	37,59	18,74	37,51	18,90
43	38,65	18,85	38,57	19,02	38,48	19,19	38,40	19,35
44	39,55	19,29	39,46	19,46	39,38	19,63	39,29	19,80
45	40,45	19,73	40,36	19,90	40,27	20,08	40,18	20,26
46	41,35	20,17	41,26	20,35	41,17	20,53	41,08	20,71
47	42,24	20,60	42,15	20,79	42,06	20,97	41,97	21,16
48	43,14	21,04	43,05	21,23	42,96	21,42	42,86	21,61
49	44,04	21,48	43,95	21,67	43,85	21,86	43,76	22,06
50	44,94	21,92	44,84	22,12	44,75	22,31	44,65	22,51
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	64 Deg.		63 Degrees					

TRAVERSE TABLE.

54

Distance	26 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	45,84	22,36	45,74	22,56	45,64	22,76	45,54	22,96
52	46,74	22,80	46,64	23,00	46,54	23,20	46,44	23,41
53	47,64	23,23	47,53	23,44	47,43	23,65	47,32	23,86
54	48,54	23,67	48,43	23,88	48,33	24,10	48,21	24,31
55	49,43	24,11	49,33	24,33	49,22	24,54	49,11	24,76
56	50,33	24,55	50,23	24,77	50,12	24,99	50,00	25,21
57	51,23	24,99	51,12	25,21	51,01	25,43	50,89	25,66
58	52,13	25,43	52,02	25,65	51,91	25,88	51,78	26,11
59	53,03	25,86	52,92	26,10	52,80	26,33	52,68	26,56
60	53,93	26,30	53,81	26,54	53,70	26,77	53,57	27,01
61	54,83	26,74	54,71	26,98	54,59	27,22	54,47	27,46
62	55,73	27,18	55,61	27,42	55,49	27,66	55,37	27,91
63	56,62	27,62	56,50	27,86	56,38	28,10	56,25	28,36
64	57,52	28,05	57,40	28,31	57,28	28,56	57,15	28,81
65	58,42	28,49	58,30	28,75	58,17	29,00	58,01	29,26
66	59,32	28,93	59,19	29,19	59,07	29,45	58,94	29,71
67	60,22	29,37	60,09	29,63	59,96	29,89	59,83	30,76
68	61,12	29,81	60,99	30,07	60,86	30,34	60,72	30,61
69	62,02	30,24	61,89	30,52	61,75	30,79	61,62	31,06
70	62,92	30,69	62,78	30,96	62,65	31,23	62,51	31,51
71	63,81	31,12	63,68	31,40	63,54	31,68	63,40	31,96
72	64,71	31,56	64,58	31,84	64,44	32,13	64,30	32,41
73	65,61	32,00	65,47	32,29	65,33	32,57	65,19	32,86
74	66,51	32,44	66,37	32,73	66,23	33,02	66,08	33,31
75	67,41	32,88	67,27	33,17	67,12	33,46	66,97	33,76
76	68,31	33,31	68,17	33,61	68,02	33,91	67,87	34,21
77	69,21	33,75	69,06	34,05	68,91	34,36	68,77	34,66
78	70,11	34,19	69,96	34,50	69,81	34,80	69,65	35,11
79	71,01	34,63	70,86	34,94	70,70	35,25	70,55	35,56
80	71,90	35,07	71,75	35,38	71,59	35,70	71,44	36,01
81	72,80	35,51	72,65	35,83	72,49	36,14	72,33	36,46
82	73,60	35,95	73,54	36,27	73,38	36,59	73,22	36,91
83	74,50	36,38	74,44	36,71	74,28	37,03	74,12	37,36
84	75,50	36,82	75,34	37,15	75,17	37,48	75,01	37,81
85	76,40	37,26	76,24	37,59	76,07	37,93	75,90	38,26
86	77,30	37,70	77,13	38,04	76,96	38,37	76,80	38,71
87	78,20	38,14	78,03	38,48	77,86	38,82	77,69	39,16
88	79,10	38,57	78,93	38,92	78,75	39,26	78,58	39,61
89	79,99	39,01	79,82	39,36	79,65	39,71	79,48	40,06
90	80,89	39,44	80,72	39,81	80,54	40,16	80,37	40,51
91	81,79	39,89	81,62	40,25	81,44	40,60	81,26	40,96
92	82,69	40,33	82,51	40,70	82,33	41,05	82,15	41,41
93	83,59	40,77	83,41	41,13	83,23	41,50	83,05	41,86
94	84,49	41,21	84,31	41,57	84,12	41,94	83,94	42,31
95	85,39	41,64	85,20	42,02	85,02	42,39	84,85	42,76
96	86,29	42,08	86,10	42,46	85,91	42,83	85,73	43,21
97	87,19	42,52	87,00	42,90	86,81	43,28	86,62	43,66
98	88,08	42,96	87,89	43,34	87,70	43,74	87,52	44,11
99	88,98	43,40	88,79	43,78	88,60	44,17	88,41	44,56
100	89,88	43,84	89,69	44,23	89,49	44,62	89,30	45,01
Distance	64 Deg.		63 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

Distance	27 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,89	0,45	0,89	0,46	0,89	0,46	0,89	0,47
2	1,78	0,91	1,78	0,92	1,77	0,92	1,77	0,93
3	2,67	1,36	2,67	1,37	2,66	1,39	2,66	1,40
4	3,56	1,82	3,56	1,83	3,55	1,85	3,54	1,86
5	4,46	2,27	4,45	2,29	4,44	2,31	4,43	2,23
6	5,35	2,72	5,33	2,75	5,32	2,77	5,31	2,79
7	6,24	3,18	6,22	3,21	6,21	3,23	6,20	3,26
8	7,13	3,63	7,11	3,66	7,10	3,69	7,08	3,73
9	8,02	4,09	8,00	4,12	7,98	4,16	7,97	4,19
10	8,91	4,54	8,89	4,58	8,87	4,62	8,85	4,66
11	9,80	4,99	9,78	5,04	9,76	5,08	9,73	5,12
12	10,69	5,45	10,67	5,49	10,64	5,54	10,62	5,59
13	11,58	5,90	11,56	5,95	11,53	6,00	11,51	6,05
14	12,47	6,36	12,45	6,41	12,42	6,47	12,40	6,52
15	13,37	6,81	13,34	6,87	13,31	6,93	13,28	6,99
16	14,26	7,26	14,22	7,33	14,19	7,39	14,16	7,45
17	15,15	7,72	15,11	7,78	15,08	7,85	15,05	7,92
18	16,04	8,17	16,00	8,24	15,97	8,31	15,93	8,38
19	16,93	8,63	16,89	8,70	16,85	8,76	16,82	8,85
20	17,82	9,08	17,78	9,16	17,74	9,24	17,70	9,31
21	18,71	9,53	18,67	9,62	18,63	9,70	18,59	9,78
22	19,60	9,99	19,56	10,07	19,51	10,16	19,47	10,24
23	20,49	10,44	20,45	10,58	20,40	10,62	20,36	10,71
24	21,38	10,90	21,34	10,99	21,29	11,08	21,24	11,18
25	22,28	11,35	22,23	11,45	22,18	11,55	22,13	11,64
26	23,17	11,80	23,12	11,91	23,06	12,01	23,01	12,11
27	24,06	12,26	24,00	12,36	23,95	12,47	23,89	12,57
28	24,95	12,71	24,89	12,82	24,84	12,93	24,78	13,04
29	25,84	13,17	25,78	13,28	25,72	13,39	25,67	13,60
30	26,73	13,62	26,67	13,74	26,61	13,85	26,55	13,97
31	27,62	14,07	27,56	14,19	27,50	14,32	27,44	14,43
32	28,51	14,53	28,45	14,65	28,38	14,78	28,32	14,90
33	29,40	14,98	29,34	15,11	29,27	15,24	29,21	15,37
34	30,29	15,44	30,23	15,57	30,16	15,70	30,09	15,83
35	31,19	15,89	31,12	16,03	31,05	16,16	30,98	16,30
36	32,08	16,34	32,01	16,48	31,93	16,63	31,86	16,76
37	32,97	16,80	32,89	16,94	32,82	17,09	32,75	17,23
38	33,86	17,25	33,78	17,40	33,71	17,55	33,63	17,70
39	34,75	17,71	34,67	17,85	34,59	18,00	34,52	18,16
40	35,64	18,16	35,56	18,32	35,49	18,47	35,40	18,62
41	36,53	18,61	36,45	18,77	36,37	18,93	36,29	19,09
42	37,42	19,07	37,34	19,23	37,25	19,39	37,17	19,56
43	38,31	19,52	38,23	19,69	38,14	19,86	38,06	20,02
44	39,20	19,98	39,12	20,15	39,03	20,32	38,94	20,49
45	40,10	20,43	40,01	20,61	39,92	20,78	39,83	20,95
46	40,99	20,88	40,90	21,06	40,80	21,24	40,71	21,42
47	41,88	21,34	41,78	21,52	41,69	21,70	41,60	21,89
48	42,77	21,79	42,67	21,98	42,58	22,16	42,48	22,35
49	43,66	22,25	43,56	22,44	43,46	22,63	43,37	22,82
50	44,55	22,70	44,45	22,89	44,35	23,09	44,25	23,28
Distance	63 Deg.		62 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

56

Distance	27 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	45,44	23,15	45,35	23,35	45,25	23,55	45,14	23,75
52	46,33	23,61	46,23	23,81	46,14	24,01	46,02	24,21
53	47,22	24,06	47,12	24,27	47,03	24,47	46,91	24,68
54	48,12	24,52	48,01	24,73	47,91	24,94	47,79	25,15
55	49,01	24,97	48,90	25,19	48,79	25,40	48,68	25,61
56	49,90	25,42	49,78	25,64	49,68	25,86	49,56	26,08
57	50,79	25,88	50,67	26,10	50,57	26,32	50,45	26,54
58	51,68	26,33	51,59	26,56	51,45	26,78	51,33	27,01
59	52,57	26,79	52,45	27,02	52,33	27,25	52,22	27,48
60	53,46	27,24	53,34	27,47	53,22	27,71	53,10	27,95
61	54,35	27,69	54,23	27,93	54,11	28,17	53,98	28,40
62	55,24	28,15	55,12	28,39	55,00	28,63	54,87	28,87
63	56,13	28,60	56,02	28,85	55,88	29,09	55,75	29,34
64	57,03	29,06	56,90	29,30	56,77	29,55	56,64	29,80
65	57,92	29,51	57,79	29,76	57,66	30,02	57,52	30,27
66	58,81	29,96	58,68	30,22	58,54	30,48	58,41	30,73
67	59,70	30,42	59,56	30,68	59,43	30,94	59,29	31,20
68	60,59	30,87	60,45	31,14	60,32	31,40	60,18	31,67
69	61,48	31,33	61,34	31,59	61,20	31,86	61,06	32,13
70	62,37	31,78	62,23	32,06	62,09	32,32	61,95	32,59
71	63,26	32,23	63,12	32,51	62,98	32,79	62,83	33,06
72	64,15	32,69	64,01	32,97	63,87	33,25	63,72	33,53
73	65,04	33,14	64,90	33,43	64,75	33,71	64,60	33,99
74	65,94	33,60	65,79	33,88	65,64	34,17	65,49	34,46
75	66,83	34,05	66,68	34,34	66,53	34,63	66,37	34,92
76	67,72	34,50	67,57	34,80	67,41	35,10	67,26	35,39
77	68,61	34,96	68,45	35,26	68,30	35,56	68,14	35,86
78	69,50	35,41	69,34	35,72	69,19	36,02	69,03	36,32
79	70,39	35,87	70,23	36,17	70,07	36,48	69,91	36,79
80	71,28	36,32	71,12	36,63	70,96	36,94	70,80	37,25
81	72,17	36,77	72,01	37,09	71,85	37,40	71,68	37,72
82	73,06	37,23	72,90	37,55	72,74	37,86	72,57	38,18
83	73,95	37,68	73,79	38,00	73,62	38,33	73,46	38,65
84	74,85	38,14	74,68	38,46	74,51	38,79	74,34	39,11
85	75,74	38,59	75,57	38,92	75,40	39,25	75,23	39,58
86	76,63	39,04	76,46	39,38	76,28	39,71	76,11	40,05
87	77,52	39,50	77,35	39,84	77,17	40,17	77,00	40,55
88	78,41	39,95	78,23	40,29	78,06	40,64	77,88	40,98
89	79,30	40,41	79,13	40,75	78,94	41,10	78,77	41,43
90	80,19	40,86	80,01	41,21	79,83	41,56	79,65	41,91
91	81,08	41,31	80,90	41,67	80,72	42,02	80,53	42,37
92	81,91	41,77	81,79	42,12	81,61	42,48	81,42	42,84
93	82,80	42,22	82,68	42,58	82,49	42,94	82,30	43,30
94	83,70	42,68	83,57	43,04	83,38	43,41	83,19	43,77
95	84,59	43,13	84,46	43,50	84,27	43,87	84,07	44,34
96	85,48	43,59	85,35	43,96	85,15	44,33	85,06	44,70
97	86,37	44,04	86,24	44,41	86,04	44,79	86,81	45,17
98	87,26	44,49	87,12	44,87	86,93	45,25	86,73	45,63
99	88,15	44,95	88,01	45,33	87,81	45,72	87,61	46,10
100	89,10	45,40	88,90	45,79	88,70	46,18	88,50	46,56
Distance	Dep.		Lat.		Dep.		Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
63 Deg.								
62 Degrees								

TRAVERSE TABLE.

Distance.	28 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,88	0,47	0,88	0,47	0,88	0,48	0,88	0,48
2	1,77	0,94	1,76	0,95	1,76	0,95	1,75	0,96
3	2,65	1,41	2,64	1,42	2,64	1,43	2,63	1,44
4	3,53	1,88	3,52	1,89	3,52	1,91	3,51	1,92
5	4,42	2,35	4,40	2,37	4,39	2,39	4,38	2,41
6	5,30	2,82	5,29	2,84	5,27	2,86	5,26	2,89
7	6,18	3,29	6,17	3,31	6,15	3,34	6,14	3,37
8	7,06	3,76	7,05	3,79	7,03	3,82	7,01	3,85
9	7,95	4,23	7,93	4,27	7,91	4,29	7,89	4,33
10	8,83	4,70	8,81	4,73	8,79	4,77	8,77	4,81
11	9,71	5,16	9,69	5,21	9,67	5,25	9,64	5,29
12	10,60	5,63	10,57	5,68	10,55	5,73	10,52	5,77
13	11,48	6,10	11,45	6,15	11,42	6,20	11,40	6,25
14	12,36	6,57	12,33	6,63	12,30	6,68	12,28	6,73
15	13,24	7,04	13,21	7,10	13,18	7,16	13,15	7,22
16	14,13	7,51	14,10	7,57	14,06	7,63	14,03	7,70
17	15,01	7,98	14,98	8,05	14,94	8,11	14,91	8,18
18	15,89	8,45	15,86	8,12	15,82	8,59	15,79	8,66
19	16,78	8,92	16,74	8,99	16,70	9,07	16,66	9,14
20	17,67	9,39	17,62	9,46	17,58	9,54	17,54	9,62
21	18,54	9,86	18,50	9,94	18,46	10,02	18,41	10,10
22	19,43	10,33	19,38	10,41	19,33	10,50	19,29	10,58
23	20,31	10,80	20,26	10,89	20,21	10,97	20,17	11,06
24	21,19	11,27	21,14	11,36	21,09	11,45	21,04	11,54
25	22,07	11,73	22,02	11,33	21,97	11,93	21,92	12,03
26	22,96	12,20	22,90	12,30	22,85	12,41	22,79	12,51
27	23,84	12,67	23,79	12,78	23,73	12,88	23,67	12,99
28	24,72	13,14	24,67	13,25	24,61	13,36	24,55	13,47
29	25,61	13,61	25,55	13,72	25,49	13,83	25,43	13,95
30	26,49	14,08	26,43	14,20	26,37	14,32	26,30	14,43
31	27,37	14,55	27,31	14,67	27,14	14,79	27,18	14,91
32	28,26	15,02	28,19	15,14	28,02	15,27	28,06	15,39
33	29,14	15,49	29,07	15,62	28,90	15,75	28,93	15,87
34	30,02	15,96	29,95	16,09	29,78	16,22	29,81	16,35
35	30,90	16,43	30,83	16,57	30,66	16,70	30,69	16,84
36	31,79	16,90	31,71	17,04	31,54	17,18	31,50	17,32
37	32,67	17,37	32,59	17,51	32,42	17,65	32,44	17,80
38	33,55	17,84	33,48	17,98	33,30	18,13	33,32	18,28
39	34,44	18,31	34,36	18,46	34,18	18,61	34,20	18,76
40	35,32	18,78	35,24	18,93	35,15	19,09	35,07	19,24
41	36,20	19,25	36,12	19,41	36,03	19,56	35,95	19,72
42	37,08	19,72	37,00	19,88	36,91	20,04	36,82	20,20
43	37,97	20,19	37,88	20,35	37,79	20,52	37,70	20,68
44	38,85	20,66	38,76	20,83	38,67	20,99	38,58	21,16
45	39,73	21,12	39,64	21,30	39,55	21,47	39,45	21,65
46	40,65	21,59	40,52	21,77	40,43	21,95	40,33	22,13
47	41,60	22,06	41,40	22,24	41,31	22,43	41,21	22,61
48	42,41	22,53	42,28	22,72	42,19	22,90	42,09	23,09
49	43,30	23,00	43,17	23,19	43,06	23,38	42,96	23,57
50	44,15	23,46	44,05	23,67	43,94	23,87	43,84	24,05
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	62 Deg.		61 Degrees					

TRAVERSE TABLE.

58

Distance.	28 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	45,03	23,94	44,93	24,14	44,82	24,34	44,71	24,53
52	45,91	24,41	45,81	24,61	45,70	24,81	45,59	25,01
53	46,80	24,88	46,69	25,09	46,58	25,29	46,47	25,49
54	47,68	25,35	47,57	25,56	47,46	25,77	47,35	25,97
55	48,56	25,82	48,45	26,03	48,34	26,24	48,22	26,46
56	49,45	26,29	49,33	26,50	49,22	26,72	49,10	26,94
57	50,33	26,76	50,21	26,97	50,09	27,20	49,98	27,42
58	51,21	27,23	51,09	27,46	50,97	27,67	50,85	27,90
59	52,10	27,70	51,97	27,92	51,85	28,15	51,78	28,38
60	52,98	28,17	52,85	28,40	52,73	28,63	52,61	28,86
61	53,86	28,64	53,73	28,87	53,61	29,11	53,48	29,34
62	54,74	29,11	54,62	29,35	54,49	29,58	54,36	29,82
63	55,63	29,58	55,50	29,82	55,37	30,06	55,24	30,30
64	56,51	30,04	56,38	30,29	56,25	30,54	56,11	30,78
65	57,39	30,51	57,26	30,76	57,12	31,02	56,99	31,26
66	58,28	30,98	58,14	31,24	57,90	31,49	57,87	31,75
67	59,16	31,45	59,02	31,70	58,78	31,97	58,74	32,23
68	60,04	31,92	59,90	32,18	59,66	32,05	59,62	32,71
69	60,92	32,39	60,78	32,66	60,54	32,52	60,50	33,19
70	61,81	32,86	61,66	33,13	61,52	33,40	61,37	33,67
71	62,69	33,33	62,54	33,61	62,40	33,88	62,25	34,15
72	63,57	33,80	63,42	34,08	63,28	34,36	63,13	34,63
73	64,46	34,27	64,31	34,55	64,15	34,83	64,00	35,11
74	65,34	34,74	65,19	35,01	65,03	35,31	64,88	35,59
75	66,22	35,21	66,07	35,50	65,91	35,79	65,76	36,07
76	67,11	35,68	66,95	35,97	66,79	36,26	66,63	36,56
77	67,99	36,15	67,83	36,44	67,67	36,74	67,51	37,04
78	68,87	36,62	68,71	36,92	68,55	37,22	68,39	37,62
79	69,75	37,08	69,59	37,39	69,43	37,69	69,26	38,00
80	70,64	37,56	70,47	37,87	70,31	38,17	70,14	38,48
81	71,52	38,03	71,35	38,34	71,19	38,65	71,02	38,96
82	72,40	38,50	72,23	38,85	72,06	39,13	71,89	39,44
83	73,29	38,97	73,11	39,29	72,94	39,61	72,77	39,92
84	74,17	39,43	74,00	39,76	73,82	40,08	73,65	40,40
85	75,05	39,90	74,88	40,23	74,70	40,56	74,52	40,88
86	75,93	40,37	75,76	40,70	75,58	41,04	75,40	41,37
87	76,82	40,84	76,64	41,18	76,46	41,51	76,28	41,85
88	77,70	41,31	77,52	41,65	77,34	41,99	77,16	42,33
89	78,58	41,78	78,40	42,12	78,22	42,47	78,03	42,81
90	79,47	42,25	79,28	42,60	79,09	42,94	78,91	43,29
91	80,35	42,72	80,16	43,07	79,97	43,42	79,78	43,77
92	81,23	43,19	81,04	43,55	80,85	43,90	80,66	44,25
93	82,12	43,66	81,92	44,02	81,73	44,38	81,54	44,73
94	83,00	44,13	82,80	44,49	82,61	44,85	82,41	45,21
95	83,88	44,60	83,69	44,96	83,49	45,33	83,29	45,69
96	84,76	45,07	84,57	45,44	84,37	45,81	84,17	46,18
97	85,65	45,54	85,45	45,91	85,25	46,28	85,05	46,66
98	86,53	46,00	86,33	46,38	86,13	46,76	85,92	47,14
99	87,41	46,47	87,21	46,86	87,01	47,24	86,80	47,62
100	88,30	46,95	88,09	47,33	87,88	47,72	87,67	48,10
Distance.	62 Deg.		61 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

Distance.	29 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,88	0,49	0,87	0,49	0,87	0,49	0,87	0,50
2	1,75	0,97	1,75	1,00	1,74	0,99	1,74	0,99
3	2,62	1,46	2,62	1,47	2,61	1,48	2,61	1,49
4	3,50	1,94	3,49	1,96	3,48	1,97	3,47	1,99
5	4,37	2,43	4,36	2,45	4,35	2,46	4,34	2,48
6	5,25	2,91	5,25	2,93	5,22	2,96	5,21	2,98
7	6,12	3,40	6,11	3,42	6,09	3,45	6,08	3,47
8	6,99	3,88	6,98	3,91	6,96	3,94	6,96	3,97
9	7,87	4,37	7,85	4,40	7,83	4,43	7,81	4,47
10	8,75	4,85	8,73	4,89	8,70	4,92	8,68	4,96
11	9,62	5,33	9,60	5,38	9,57	5,42	9,55	5,46
12	10,50	5,82	10,47	5,86	10,44	5,91	10,42	5,96
13	11,37	6,30	11,34	6,35	11,31	6,40	11,29	6,45
14	12,25	6,79	12,22	6,84	12,18	6,89	12,15	6,95
15	13,12	7,27	13,09	7,33	13,05	7,39	13,02	7,44
16	14,00	7,76	13,96	7,82	13,92	7,88	13,99	7,94
17	14,87	8,24	14,84	8,31	14,79	8,37	14,86	8,44
18	15,75	8,73	15,71	8,80	15,66	8,86	15,63	8,93
19	16,62	9,21	16,58	9,29	16,53	9,35	16,49	9,43
20	17,49	9,70	17,45	9,77	17,41	9,85	17,36	9,92
21	18,37	10,18	18,32	10,26	18,28	10,34	18,23	10,42
22	19,24	10,67	19,20	10,75	19,15	10,83	19,10	10,92
23	20,12	11,15	20,07	11,24	20,02	11,32	19,97	11,41
24	20,99	11,64	20,94	11,73	20,89	11,82	20,81	11,91
25	21,87	12,12	21,82	12,22	21,76	12,31	21,70	12,40
26	22,74	12,61	22,69	12,71	22,63	12,81	22,57	12,90
27	23,62	13,09	23,57	13,20	23,50	13,29	23,44	13,40
28	24,49	13,58	24,43	13,68	24,37	13,78	24,31	13,89
29	25,37	14,06	25,31	14,17	25,24	14,28	25,18	14,39
30	26,24	14,54	26,18	14,66	26,11	14,77	26,05	14,89
31	27,11	15,03	27,05	15,15	26,98	15,27	26,91	15,38
32	27,99	15,51	27,92	15,64	27,85	15,76	27,78	15,88
33	28,86	16,00	28,80	16,13	28,72	16,25	28,65	16,38
34	29,74	16,48	29,67	16,61	29,59	16,74	29,52	16,87
35	30,61	16,96	30,54	17,10	30,46	17,23	30,39	17,37
36	31,49	17,45	31,42	17,59	31,33	17,73	31,25	17,86
37	32,36	17,94	32,29	18,08	32,20	18,22	32,12	18,36
38	33,24	18,42	33,16	18,57	33,07	18,71	32,99	18,86
39	34,11	18,99	34,03	19,06	33,94	19,20	33,86	19,35
40	35,98	19,39	34,90	19,54	34,81	19,70	34,73	19,85
41	35,85	19,88	35,77	20,03	35,68	20,19	35,60	20,35
42	36,73	20,36	36,65	20,52	36,55	20,68	36,46	20,85
43	37,60	20,85	37,52	21,01	37,42	21,17	37,33	21,34
44	38,48	21,33	38,39	21,50	38,29	21,67	38,20	21,83
45	39,35	21,82	39,27	21,99	39,16	22,16	39,07	22,33
46	40,23	22,30	40,14	22,48	40,03	22,65	39,94	22,83
47	41,11	22,80	41,01	22,97	40,90	23,14	40,80	23,32
48	42,99	23,28	41,88	23,46	41,77	23,63	41,67	23,82
49	42,85	23,77	42,76	24,95	42,64	24,13	42,54	24,31
50	43,73	24,24	43,63	24,43	43,52	24,62	43,41	24,81
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	61 Deg.		60 Degrees.					

TRAVERSE TABLE.

60

Distance	29 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	44,61	24,73	44,50	24,93	44,39	25,11	44,28	25,31
52	45,48	25,61	45,37	25,42	45,26	25,61	45,15	25,80
53	46,36	25,70	46,24	25,91	46,13	26,10	46,01	26,30
54	47,23	26,18	47,12	26,40	47,00	26,59	46,88	26,80
55	48,11	26,67	47,99	26,89	47,87	27,08	47,75	27,29
56	48,98	27,15	48,86	27,37	48,74	27,57	48,62	27,79
57	49,86	27,64	49,74	27,86	49,61	28,07	49,49	28,28
58	50,73	28,12	50,61	28,35	50,48	28,56	50,35	28,78
59	51,61	28,61	51,48	28,84	51,35	29,05	51,22	29,28
60	52,48	29,09	52,35	29,32	52,22	29,55	52,09	29,77
61	53,35	29,57	53,22	29,81	53,09	30,04	52,96	30,27
62	54,23	30,06	54,10	30,29	53,96	30,53	53,83	30,77
63	55,10	30,54	54,97	30,78	54,83	31,02	54,70	31,26
64	55,98	31,03	55,84	31,27	55,70	31,51	55,56	31,76
65	56,85	31,51	56,72	31,76	56,57	32,01	56,43	32,25
66	57,73	32,00	57,59	32,25	57,44	32,50	57,30	32,75
67	58,60	32,48	58,46	32,74	58,31	32,99	58,17	33,25
68	59,48	32,97	59,33	33,23	59,18	33,48	59,04	33,74
69	60,35	33,46	60,21	33,72	60,05	33,97	59,90	34,24
70	61,22	33,94	61,08	34,20	60,93	34,41	60,77	34,74
71	62,09	34,42	61,95	34,69	61,80	34,96	61,64	35,23
72	62,97	34,91	62,82	35,18	62,67	35,45	62,51	35,73
73	63,85	35,39	63,69	35,67	63,54	35,95	63,38	36,22
74	64,72	35,88	64,57	36,16	64,41	36,44	64,25	36,72
75	65,59	36,36	65,44	36,65	65,28	36,93	65,11	37,22
76	66,47	36,85	66,31	37,14	66,15	37,42	65,98	37,71
77	67,35	37,35	67,19	37,63	67,02	37,91	66,85	38,21
78	68,22	37,82	68,06	38,11	67,89	38,41	67,72	38,70
79	69,09	38,30	68,93	38,60	68,76	38,90	68,59	39,20
80	69,97	38,78	69,80	39,09	69,63	39,39	69,46	39,70
81	70,85	39,27	70,67	39,58	70,50	39,89	70,32	40,19
82	71,71	39,75	71,55	40,07	71,37	40,38	71,19	40,69
83	72,59	40,24	72,42	40,56	72,24	40,87	72,06	41,19
84	73,46	40,72	73,39	41,04	73,11	41,36	72,93	41,68
85	74,34	41,21	74,17	41,53	73,98	41,85	73,80	42,18
86	75,21	41,70	75,04	42,02	74,85	42,35	74,66	42,67
87	76,09	42,18	75,91	42,51	75,72	42,84	75,53	43,17
88	76,96	42,67	76,78	43,00	76,59	43,33	76,40	43,67
89	77,84	43,15	77,65	43,49	77,46	43,82	77,27	44,16
90	78,72	43,63	78,53	43,97	78,33	44,32	78,14	44,66
91	79,59	44,12	79,40	44,46	79,20	44,81	79,01	45,16
92	80,47	44,60	80,27	44,95	80,07	45,30	79,87	45,65
93	81,34	45,09	81,14	45,44	80,94	45,79	80,74	46,15
94	82,22	45,57	82,02	45,93	81,81	46,29	81,61	46,64
95	83,09	46,06	82,89	46,42	82,68	46,78	82,48	47,14
96	83,97	46,54	83,76	46,91	83,55	47,27	83,35	47,64
97	84,84	47,03	84,64	47,40	84,42	47,76	84,21	48,13
98	85,72	47,51	85,51	47,89	85,29	48,25	85,08	48,63
99	86,59	48,00	86,38	48,38	86,16	48,75	85,95	49,12
100	87,46	48,48	87,25	48,86	87,04	49,24	86,82	49,62
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	61 Deg.				60 Degrees			

TRAVERSE TABLE.

Distance	30 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,87	0,50	0,86	0,50	0,86	0,51	0,86	0,51
2	1,73	1,00	1,73	1,00	1,72	1,01	1,72	1,02
3	2,60	1,50	2,59	1,51	2,58	1,52	2,58	1,53
4	3,46	2,00	3,45	2,01	3,45	2,03	3,44	2,04
5	4,33	2,50	4,32	2,52	4,31	2,54	4,30	2,56
6	5,20	3,00	5,18	3,02	5,17	3,04	5,16	3,07
7	6,06	3,50	6,05	3,53	6,03	3,55	6,02	3,58
8	6,93	4,00	6,91	4,03	6,89	4,06	6,88	4,09
9	7,79	4,50	7,77	4,53	7,75	4,57	7,73	4,60
10	8,66	5,00	8,64	5,04	8,62	5,07	8,59	5,11
11	9,53	5,50	9,50	5,54	9,48	5,58	9,45	5,62
12	10,39	6,00	10,35	6,04	10,34	6,09	10,31	6,13
13	11,26	6,50	11,23	6,55	11,20	6,60	11,17	6,65
14	12,12	7,00	12,09	7,05	12,06	7,10	12,03	7,16
15	12,99	7,50	12,96	7,56	12,93	7,61	12,89	7,67
16	13,86	8,00	13,82	8,06	13,79	8,12	13,75	8,18
17	14,72	8,50	14,69	8,56	14,65	8,63	14,61	8,69
18	15,59	9,00	15,55	9,07	15,51	9,14	15,47	9,20
19	16,45	9,50	16,41	9,57	16,37	9,65	16,33	9,71
20	17,32	10,00	17,28	10,07	17,23	10,15	17,19	10,23
21	18,19	10,50	18,14	10,58	18,09	10,66	18,05	10,74
22	19,05	11,00	19,00	11,08	18,96	11,17	18,91	11,25
23	19,92	11,50	19,87	11,59	19,82	11,67	19,76	11,76
24	20,78	12,00	20,73	12,09	20,68	12,18	20,62	12,27
25	21,65	12,50	21,60	12,59	21,54	12,69	21,48	12,78
26	22,52	13,00	22,46	13,10	22,40	13,20	22,34	13,29
27	23,38	13,50	23,32	13,60	23,27	13,71	23,20	13,80
28	24,25	14,00	24,19	14,11	24,13	14,21	24,06	14,31
29	25,11	14,50	25,05	14,61	24,99	14,72	24,92	14,82
30	25,98	15,00	25,91	15,11	25,85	15,22	25,78	15,34
31	26,85	15,50	26,78	15,62	26,71	15,73	26,64	15,85
32	27,71	16,00	27,64	16,12	27,57	16,24	27,50	16,36
33	28,58	16,50	28,51	16,62	28,43	16,75	28,36	16,87
34	29,44	17,00	29,37	17,13	29,30	17,26	29,22	17,38
35	30,31	17,50	30,23	17,63	30,16	17,77	30,08	17,89
36	31,18	18,00	31,10	18,14	31,02	18,27	30,94	18,40
37	32,04	18,50	31,96	18,64	31,88	18,78	31,79	18,92
38	32,91	19,00	32,83	19,14	32,74	19,29	32,65	19,43
39	33,77	19,50	33,69	19,65	33,60	19,80	33,51	19,94
40	34,64	20,00	34,55	20,15	34,46	20,30	34,38	20,45
41	35,51	20,50	35,42	20,65	35,33	20,81	35,23	20,96
42	36,37	21,00	36,28	21,16	36,19	21,32	36,09	21,47
43	37,24	21,50	37,15	21,66	37,05	21,83	36,95	21,98
44	38,10	22,00	38,01	22,17	37,91	22,33	37,81	22,48
45	38,97	22,50	38,87	22,67	38,77	22,84	38,67	22,99
46	39,84	23,00	39,74	23,17	39,64	23,35	39,53	23,50
47	40,70	23,50	40,60	23,68	40,50	23,86	40,39	24,01
48	41,57	24,00	41,47	24,18	41,36	24,36	41,25	24,52
49	42,43	24,50	42,33	24,69	42,22	24,86	42,11	25,03
50	43,30	25,00	43,19	25,19	43,08	25,36	42,97	25,56
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
			60 Deg. 59 Degrees					

TRAVERSE TABLE.

62

Distance	30 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	44,16	25,50	44,06	25,69	43,94	25,88	43,83	26,08
52	45,03	26,00	44,92	26,20	44,81	26,39	44,69	26,59
53	45,90	26,50	45,78	26,70	45,67	26,90	45,55	27,10
54	46,76	27,00	46,65	27,20	46,53	27,41	46,41	27,61
55	47,63	27,50	47,51	27,71	47,39	27,92	47,27	28,12
56	48,50	28,00	48,38	28,21	48,25	28,42	48,13	28,63
57	49,36	28,50	49,24	28,72	49,12	28,93	48,98	29,14
58	50,23	29,00	50,10	29,22	49,98	29,44	49,84	29,65
59	51,10	29,50	50,97	29,72	50,84	29,95	50,70	30,16
60	51,96	30,00	51,83	30,23	51,70	30,45	51,56	30,68
61	52,83	30,50	52,69	30,73	52,56	30,96	52,42	31,19
62	53,69	31,00	53,56	31,23	53,42	31,47	53,28	31,70
63	54,56	31,50	54,42	31,74	54,28	31,98	54,14	32,21
64	55,43	32,00	55,29	32,24	55,15	32,48	55,00	32,72
65	56,29	32,50	56,15	32,75	56,01	32,99	55,86	33,23
66	57,16	33,00	57,01	33,25	56,87	33,50	56,72	33,74
67	58,02	33,50	57,88	33,75	57,73	34,01	57,58	34,25
68	58,89	34,00	58,74	34,26	58,59	34,52	58,44	34,76
69	59,76	34,50	59,61	34,76	59,46	35,02	59,30	35,28
70	60,62	35,00	60,47	35,26	60,31	35,53	60,16	35,79
71	61,49	35,50	61,33	35,77	61,18	36,04	61,02	36,30
72	62,35	36,00	62,20	36,27	62,04	36,54	61,88	36,81
73	63,22	36,50	63,06	36,78	62,90	37,05	62,74	37,32
74	64,09	37,00	63,92	37,28	63,76	37,56	63,59	37,83
75	64,95	37,50	64,79	37,78	64,62	38,07	64,45	38,34
76	65,82	38,00	65,65	38,29	65,49	38,58	65,31	38,86
77	66,68	38,50	66,52	38,79	66,35	39,08	66,17	39,37
78	67,55	39,00	67,38	39,30	67,21	39,59	67,03	39,88
79	68,42	39,50	68,24	39,80	68,07	40,10	67,89	40,39
80	69,28	40,00	69,11	40,30	68,93	40,60	68,75	40,90
81	70,15	40,50	69,97	40,81	69,79	41,11	69,61	41,41
82	71,01	41,00	70,83	41,31	70,65	41,62	70,47	41,92
83	71,88	41,50	71,70	41,81	71,52	42,13	71,33	42,44
84	72,75	42,00	72,56	42,32	72,38	42,63	72,19	42,95
85	73,61	42,50	73,43	42,82	73,24	43,14	73,05	43,46
86	74,48	43,00	74,29	43,32	74,10	43,65	73,91	43,97
87	75,34	43,50	75,15	43,83	74,96	44,16	74,77	44,48
88	76,21	44,00	76,02	44,33	75,83	44,67	75,62	44,99
89	77,08	44,50	76,88	44,84	76,69	45,17	76,48	45,50
90	77,94	45,00	77,75	45,34	77,55	45,68	77,35	46,02
91	78,81	45,50	78,61	45,84	78,41	46,19	78,21	46,53
92	79,67	46,00	79,47	46,35	79,27	46,69	79,06	47,04
93	80,54	46,50	80,34	46,85	80,13	47,20	79,92	47,55
94	81,41	47,00	81,20	47,35	80,99	47,71	80,78	48,06
95	82,27	47,50	82,07	47,86	81,86	48,22	81,64	48,57
96	83,14	48,00	82,93	48,36	82,73	48,73	82,50	49,08
97	84,00	48,50	83,79	48,87	83,58	49,23	83,36	49,59
98	84,87	49,00	84,66	49,37	84,44	49,74	84,22	50,10
99	85,74	49,50	85,52	49,87	85,29	50,25	85,08	50,61
100	86,60	50,00	86,38	50,38	86,16	50,75	85,94	51,13
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	60 Deg.		6 Degrees					

TRAVERSE TABLE.

Distance	31 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
1	0,86	0,51	0,85	0,52	0,85	0,52	0,85	0,53
2	1,71	1,03	1,71	1,04	1,70	1,04	1,70	1,05
3	2,57	1,54	2,56	1,56	2,56	1,57	2,55	1,58
4	3,43	2,06	3,42	2,07	3,41	2,09	3,40	2,10
5	4,29	2,57	4,27	2,59	4,26	2,61	4,25	2,63
6	5,14	3,09	5,13	3,11	5,12	3,13	5,10	3,16
7	6,00	3,60	5,98	3,63	5,97	3,66	5,95	3,68
8	6,86	4,12	6,84	4,15	6,82	4,18	6,80	4,21
9	7,71	4,63	7,69	4,67	7,67	4,70	7,65	4,74
10	8,57	5,15	8,55	5,19	8,53	5,22	8,50	5,26
11	9,43	5,66	9,40	5,71	9,38	5,75	9,35	5,79
12	10,29	6,18	10,26	6,22	10,23	6,27	10,20	6,31
13	11,14	6,69	11,11	6,74	11,08	6,79	11,05	6,84
14	12,00	7,21	11,97	7,26	11,94	7,32	11,90	7,37
15	12,86	7,72	12,82	7,78	12,79	7,84	12,75	7,89
16	13,71	8,24	13,68	8,30	13,64	8,36	13,60	8,42
17	14,57	8,75	14,53	8,82	14,50	8,88	14,45	8,94
18	15,43	9,27	15,39	9,34	15,35	9,40	15,30	9,47
19	16,28	9,78	16,24	9,86	16,20	9,93	16,15	10,00
20	17,14	10,30	17,10	10,37	17,05	10,45	17,01	10,52
21	18,00	10,82	17,95	10,89	17,91	10,97	17,86	11,05
22	18,86	11,33	18,81	11,41	18,76	11,50	18,71	11,58
23	19,71	11,85	19,66	11,93	19,61	12,02	19,56	12,10
24	20,57	12,36	20,52	12,45	20,46	12,54	20,41	12,63
25	21,43	12,88	21,37	12,97	21,32	13,06	21,26	13,15
26	22,28	13,39	22,23	13,49	22,17	13,59	22,11	13,68
27	23,14	13,91	23,08	14,01	23,02	14,11	22,96	14,21
28	24,00	14,42	23,94	14,53	23,88	14,63	23,81	14,73
29	24,86	14,94	24,79	15,05	24,73	15,16	24,66	15,26
30	25,71	15,45	25,65	15,56	25,58	15,68	25,51	15,79
31	26,57	15,97	26,50	16,08	26,43	16,20	26,36	16,31
32	27,43	16,48	27,36	16,60	27,28	16,72	27,21	16,84
33	28,29	17,00	28,21	17,12	28,14	17,24	28,06	17,36
34	29,14	17,51	29,07	17,64	28,99	17,77	28,91	17,89
35	30,00	18,03	29,92	18,16	29,84	18,29	29,76	18,41
36	30,86	18,54	30,78	18,68	30,70	18,81	30,61	18,94
37	31,71	19,06	31,63	19,20	31,55	19,34	31,46	19,47
38	32,57	19,57	32,49	19,71	32,40	19,86	32,31	19,99
39	33,43	20,09	33,34	20,23	33,26	20,38	33,16	20,52
40	34,29	20,60	34,20	20,75	34,11	20,90	34,01	21,05
41	35,14	21,12	35,05	21,27	34,96	21,42	34,86	21,57
42	36,00	21,63	35,92	21,79	35,81	21,95	35,71	22,10
43	36,86	22,15	36,76	22,31	36,65	22,47	36,56	22,63
44	37,71	22,66	37,62	22,83	37,52	22,99	37,41	23,15
45	38,57	23,18	38,47	23,35	38,37	23,51	38,26	23,68
46	39,43	23,69	39,33	23,86	39,22	24,04	39,11	24,20
47	40,29	24,21	40,18	24,38	40,08	24,56	39,96	24,73
48	41,14	24,72	41,04	24,90	40,93	25,08	40,81	25,26
49	42,00	25,24	41,49	25,42	41,78	25,61	41,66	25,78
50	42,86	25,75	42,75	25,94	42,64	26,12	42,52	26,31
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	59 Deg.				58 Degrees			

TRAVERSE TABLE.

64

Distance	31 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	43,72	26,27	43,60	26,46	43,48	26,65	43,37	26,84
52	44,57	26,77	44,46	26,98	44,34	27,17	44,22	27,36
53	45,45	27,29	45,31	27,50	45,19	27,69	45,07	27,89
54	46,29	27,80	46,17	27,01	46,04	28,22	45,92	28,41
55	47,14	28,32	47,02	28,53	46,90	28,74	46,77	28,94
56	48,00	28,85	47,88	28,05	47,75	29,26	47,62	29,47
57	48,86	29,35	48,73	29,57	48,60	29,79	48,47	29,00
58	49,71	29,86	49,59	30,09	49,46	30,31	49,32	30,52
59	50,57	30,38	50,44	30,61	50,31	30,83	50,17	31,04
60	51,43	30,90	51,29	31,13	51,16	31,35	51,02	31,57
61	52,29	31,42	52,15	31,64	52,01	31,87	51,87	32,10
62	53,14	31,93	53,00	32,16	52,80	32,40	52,72	32,62
63	54,00	32,45	53,86	32,68	53,72	32,92	53,57	33,15
64	54,86	32,96	54,71	33,20	54,57	33,44	54,42	33,68
65	55,71	33,48	55,57	33,72	55,42	33,96	55,27	34,20
66	56,57	33,99	56,42	34,24	56,28	34,49	56,12	34,73
67	57,43	34,51	57,28	34,76	57,13	35,01	56,97	35,25
68	58,29	35,02	58,13	35,28	57,98	35,53	57,82	35,78
69	59,14	35,54	58,99	35,80	58,83	36,05	58,67	36,31
70	60,00	36,05	59,84	36,31	59,68	36,57	59,52	36,83
71	60,86	36,57	60,70	36,83	60,54	37,09	60,37	37,36
72	61,72	37,08	61,55	37,35	61,39	37,62	61,22	37,89
73	62,57	37,60	62,41	37,87	62,24	38,14	62,07	38,41
74	63,42	38,11	63,26	38,39	63,10	38,67	62,92	38,94
75	64,28	38,63	64,12	38,91	63,95	39,19	63,77	39,46
76	65,13	39,14	64,97	39,43	64,82	39,71	64,62	39,99
77	65,99	39,66	65,83	39,95	65,66	40,23	65,47	40,52
78	66,86	40,17	66,68	40,47	66,51	40,76	66,32	41,04
79	67,72	40,69	67,54	40,98	67,36	41,28	67,17	41,57
80	68,57	41,20	68,39	41,50	68,21	41,80	68,03	42,10
81	69,43	41,72	69,25	42,02	69,06	42,32	68,88	42,62
82	70,29	42,23	70,10	42,54	69,92	42,85	69,73	43,15
83	71,14	42,75	70,96	43,06	70,77	43,37	70,58	43,67
84	72,00	43,26	71,81	43,58	71,62	43,89	71,43	44,20
85	72,86	43,78	72,67	44,10	72,48	44,41	72,28	44,73
86	73,72	44,29	73,52	44,62	73,33	44,94	73,13	45,25
87	74,57	44,81	74,38	45,13	74,18	45,46	73,98	45,78
88	75,43	45,32	75,23	45,65	75,03	45,98	74,83	46,30
89	76,29	45,84	76,09	46,17	75,89	46,51	75,68	46,83
90	77,14	46,35	76,94	46,69	76,74	47,02	76,53	47,36
91	78,00	46,87	77,80	47,21	77,59	47,55	77,38	47,88
92	78,86	47,38	78,65	47,73	78,44	48,07	78,23	48,41
93	79,72	47,90	79,51	48,24	79,30	48,59	79,08	48,94
94	80,57	48,41	80,36	48,76	80,15	49,12	79,93	49,46
95	81,43	48,93	81,22	49,28	81,01	49,64	80,78	49,99
96	82,29	49,44	82,07	49,80	81,86	50,16	81,63	50,52
97	83,14	49,96	82,93	50,32	82,71	50,69	82,48	51,04
98	84,00	50,47	83,78	50,84	83,57	51,21	83,33	51,57
99	84,86	50,99	84,64	51,36	84,42	51,73	84,18	52,09
100	85,72	51,50	85,49	51,88	85,26	52,25	85,03	52,62
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	59 Deg.		58 Degrees					

TRAVERSE TABLE.

Distance	32 Degrees							
	10 Min.		$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,85	0,53	0,85	0,53	0,84	0,54	0,84	0,54
2	1,70	1,06	1,69	1,07	1,69	1,07	1,68	1,08
3	2,54	1,59	2,54	1,60	2,53	1,61	2,52	1,62
4	3,39	2,12	3,38	2,13	3,37	2,15	3,36	2,16
5	4,24	2,65	4,23	2,67	4,22	2,69	4,20	2,79
6	5,09	3,18	5,07	3,20	5,06	3,22	5,05	3,25
7	5,94	3,71	5,92	3,73	5,90	3,76	5,89	3,78
8	6,78	4,24	6,77	4,27	6,75	4,30	6,73	4,33
9	7,63	4,77	7,61	4,80	7,59	4,84	7,57	4,87
10	8,48	5,30	8,46	5,34	8,43	5,37	8,41	5,41
11	9,33	5,83	9,30	5,87	9,27	5,91	9,25	5,95
12	10,18	6,36	10,15	6,40	10,12	6,45	10,09	6,49
13	11,02	6,89	10,99	6,94	10,96	6,98	10,91	7,03
14	11,87	7,42	11,84	7,47	11,81	7,52	11,77	7,57
15	12,72	7,95	12,69	8,00	12,65	8,06	12,59	8,11
16	13,57	8,48	13,53	8,54	13,49	8,60	13,45	8,65
17	14,42	9,01	14,38	9,07	14,34	9,13	14,28	9,19
18	15,26	9,54	15,22	9,60	15,18	9,67	15,14	9,73
19	16,11	10,07	16,07	10,14	16,02	10,21	16,00	10,27
20	16,96	10,60	16,91	10,67	16,87	10,75	16,82	10,82
21	17,81	11,13	17,76	11,21	17,71	11,28	17,56	11,36
22	18,65	11,66	18,61	11,74	18,55	11,82	18,50	11,90
23	19,50	12,19	19,45	12,27	19,40	12,36	19,34	12,44
24	20,35	12,72	20,30	12,81	20,24	12,90	20,18	12,98
25	21,20	13,25	21,14	13,34	21,08	13,44	21,03	13,52
26	22,05	13,78	21,99	13,88	21,93	13,97	21,87	14,06
27	22,90	14,31	22,84	14,41	22,77	14,51	22,71	14,61
28	23,74	14,84	23,68	14,94	23,62	15,05	23,45	15,15
29	24,59	15,37	24,53	15,48	24,45	15,58	24,39	15,69
30	25,44	15,90	25,37	16,01	25,30	16,12	25,23	16,23
31	26,29	16,43	26,22	16,54	26,14	16,66	26,07	16,77
32	27,14	16,96	27,06	17,08	26,99	17,19	26,91	17,31
33	27,99	17,49	27,91	17,61	27,83	17,73	27,75	17,85
34	28,83	18,02	28,79	18,14	28,67	18,27	28,59	18,39
35	29,68	18,55	29,60	18,68	29,52	18,80	29,44	18,93
36	30,53	19,08	30,45	19,21	30,36	19,34	30,28	19,47
37	31,38	19,61	31,29	19,75	31,20	19,88	31,12	20,02
38	32,23	20,14	32,14	20,28	32,05	20,41	31,96	20,56
39	33,07	20,67	32,99	20,81	32,89	20,95	32,80	21,10
40	33,92	21,20	33,83	21,34	33,74	21,49	33,64	21,64
41	34,77	21,73	34,67	21,88	34,58	22,03	34,48	22,18
42	35,62	22,26	35,52	22,41	35,42	22,57	35,32	22,72
43	36,47	22,79	36,37	22,95	36,26	23,10	36,16	23,26
44	37,31	23,32	37,21	23,48	37,11	23,64	37,01	23,80
45	38,16	23,85	38,06	24,01	37,95	24,18	37,85	24,34
46	39,01	24,38	38,90	24,55	38,79	24,71	38,69	24,88
47	39,86	24,91	39,75	25,08	39,64	25,25	39,54	25,43
48	40,71	25,44	40,60	25,62	40,48	25,79	40,37	25,97
49	41,55	25,97	41,44	26,15	41,32	26,32	41,21	26,51
50	42,40	26,50	42,29	26,68	42,17	26,86	42,05	27,05
Distance	58 Deg.		$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$	

TRAVERSE TABLE.

66

Distance.	32 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	43,25	27,03	43,13	27,21	43,01	27,40	42,89	27,59
52	44,10	27,56	43,98	27,75	43,86	27,94	43,73	28,13
53	44,95	28,09	44,82	28,28	44,70	28,48	44,57	28,67
54	45,79	28,62	45,67	28,82	45,54	29,01	45,42	29,21
55	46,64	29,15	46,52	29,35	46,38	29,55	46,26	29,75
56	47,49	29,68	47,36	29,88	47,23	30,09	47,10	30,29
57	48,34	30,21	48,21	30,42	48,07	30,62	47,94	30,84
58	49,19	30,74	49,05	30,95	48,91	31,16	48,78	31,38
59	50,03	31,27	49,90	31,49	49,76	31,70	49,62	31,92
60	50,88	31,79	50,74	32,02	50,60	32,24	50,46	32,46
61	51,73	32,32	51,59	32,55	51,45	32,77	51,30	33,00
62	52,58	32,85	52,44	33,08	52,29	33,31	52,14	33,54
63	53,42	33,38	53,28	33,62	53,13	33,85	52,98	34,08
64	54,27	33,91	54,13	34,15	53,97	34,39	53,83	34,62
65	55,12	34,44	54,97	34,69	54,82	34,92	54,67	35,16
66	55,97	34,97	55,82	35,22	55,66	35,46	55,51	35,71
67	56,81	35,50	56,67	35,75	56,50	35,99	56,35	36,25
68	57,66	36,03	57,51	36,29	57,35	36,53	57,19	36,79
69	58,51	36,56	58,36	36,82	58,19	37,07	58,03	37,33
70	59,36	37,09	59,20	37,35	59,04	37,61	58,87	37,87
71	60,21	37,62	60,05	37,89	59,88	38,15	59,71	38,41
72	61,06	38,15	60,89	38,42	60,72	38,68	60,55	38,95
73	61,91	38,68	61,74	38,95	61,57	39,24	61,40	39,49
74	62,76	39,21	62,58	39,49	62,41	39,76	62,24	40,03
75	63,60	39,74	63,43	40,02	63,25	40,30	63,08	40,57
76	64,45	40,27	64,28	40,56	64,09	40,83	63,92	41,11
77	65,30	40,80	65,12	41,09	64,94	41,37	64,76	41,65
78	66,15	41,33	65,97	41,62	65,78	41,91	65,60	42,20
79	67,00	41,86	66,81	42,16	66,62	42,44	66,44	42,74
80	67,84	42,39	67,66	42,69	67,47	42,98	67,28	43,28
81	68,69	42,92	68,50	43,22	68,31	43,52	68,12	43,82
82	69,54	43,45	69,35	43,76	69,16	44,06	68,96	44,36
83	70,39	43,98	70,20	44,29	70,00	44,59	69,81	44,90
84	71,24	44,51	71,04	44,82	70,84	45,13	70,65	45,44
85	72,08	45,04	71,89	45,36	71,69	45,67	71,50	45,98
86	72,93	45,57	72,73	45,89	72,53	46,21	72,34	46,52
87	73,78	46,10	73,58	46,43	73,37	46,74	73,18	47,06
88	74,63	46,63	74,43	46,96	74,23	47,28	74,02	47,61
89	75,48	47,16	75,27	47,49	75,06	47,82	74,86	48,15
90	76,32	47,69	76,12	48,02	75,90	48,36	75,69	48,69
91	77,17	48,22	76,95	48,56	76,75	48,89	76,53	49,23
92	78,02	48,75	77,81	49,09	77,59	49,43	77,38	49,77
93	78,87	49,28	78,65	49,63	78,43	49,97	78,22	50,31
94	79,72	49,81	79,49	50,16	79,28	50,50	79,06	50,85
95	80,56	50,34	80,35	50,69	80,12	51,04	79,90	51,39
96	81,41	50,87	81,19	51,23	80,96	51,58	80,74	51,93
97	82,26	51,40	82,04	51,76	81,81	52,12	81,58	52,47
98	83,11	51,93	82,88	52,30	82,65	52,65	82,42	53,01
99	83,96	52,46	83,73	52,83	83,49	53,19	83,26	53,56
100	84,80	52,99	84,57	53,36	84,34	53,73	84,10	54,09
Distance.	57 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	58 Deg.							

TRAVERSE TABLE.

Distance.	33 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,84	0,54	0,84	0,55	0,83	0,55	0,83	0,56
2	1,68	1,09	1,67	1,10	1,67	1,10	1,66	1,11
3	2,52	1,63	2,51	1,64	2,50	1,66	2,49	1,67
4	3,35	2,18	3,34	2,19	3,34	2,21	3,33	2,22
5	4,19	2,72	4,18	2,74	4,17	2,76	4,16	2,78
6	5,03	3,27	5,02	3,29	5,00	3,31	4,99	3,33
7	5,87	3,81	5,85	3,84	5,84	3,86	5,82	3,89
8	6,71	4,36	6,69	4,39	6,67	4,42	6,65	4,45
9	7,55	4,90	7,53	4,93	7,50	4,97	7,48	5,00
10	8,39	5,45	8,36	5,48	8,34	5,52	8,32	5,56
11	9,22	5,99	9,20	6,03	9,17	6,07	9,15	6,11
12	10,06	6,54	10,03	6,58	10,01	6,62	9,98	6,67
13	10,90	7,08	10,87	7,13	10,84	7,17	10,81	7,22
14	11,74	7,63	11,71	7,67	11,67	7,73	11,64	7,78
15	12,58	8,17	12,54	8,22	12,51	8,28	12,47	8,33
16	13,42	8,72	13,38	8,77	13,34	8,83	13,30	8,89
17	14,26	9,26	14,21	9,32	14,18	9,38	14,13	9,45
18	15,10	9,81	15,05	9,87	15,01	9,93	14,96	9,99
19	15,94	10,35	15,89	10,41	15,84	10,49	15,80	10,56
20	16,77	10,89	16,73	10,97	16,68	11,04	16,63	11,12
21	17,61	11,44	17,56	11,51	17,51	11,59	17,46	11,67
22	18,45	11,98	18,40	12,06	18,35	12,14	18,29	12,22
23	19,29	12,53	19,23	12,61	19,18	12,69	19,12	12,78
24	20,13	13,07	20,07	13,16	20,01	13,25	19,95	13,34
25	20,97	13,62	20,91	13,71	20,85	13,80	20,78	13,89
26	21,81	14,16	21,74	14,25	21,68	14,35	21,62	14,45
27	22,65	14,71	22,58	14,80	22,52	14,90	22,45	15,00
28	23,48	15,25	23,41	15,35	23,35	15,45	23,28	15,56
29	24,32	15,80	24,25	15,90	24,18	16,01	24,11	16,12
30	25,16	16,34	25,09	16,45	25,02	16,56	24,94	16,67
31	26,00	16,88	25,92	17,00	25,85	17,11	25,78	17,22
32	26,84	17,43	26,76	17,54	26,68	17,66	26,61	17,78
33	27,68	17,97	27,60	18,09	27,52	18,21	27,44	18,34
34	28,52	18,52	28,43	18,64	28,35	18,77	28,27	18,89
35	29,35	19,06	29,27	19,19	29,19	19,32	29,10	19,45
36	30,19	19,61	30,10	19,74	30,02	19,87	29,93	20,00
37	31,03	20,15	30,94	20,28	30,85	20,42	30,76	20,56
38	31,87	20,70	31,78	20,83	31,69	20,97	31,59	21,12
39	32,71	21,24	32,61	21,38	32,52	21,53	32,42	21,67
40	33,55	21,79	33,45	21,93	33,36	22,08	33,26	22,22
41	34,39	22,33	34,29	22,48	34,19	22,63	34,09	22,78
42	35,22	22,88	35,12	23,03	35,02	23,18	34,92	23,34
43	36,06	23,42	35,96	23,58	35,86	23,73	35,75	23,89
44	36,90	23,97	36,80	24,12	36,69	24,29	36,58	24,45
45	37,74	24,51	37,63	24,67	37,53	24,84	37,41	25,00
46	38,58	25,06	38,47	25,22	38,36	25,39	38,25	25,56
47	39,42	25,60	39,30	25,77	39,19	25,94	39,08	26,12
48	40,26	26,15	40,14	26,32	40,03	26,49	39,91	26,67
49	41,10	26,69	40,98	26,86	40,86	27,05	40,74	27,23
50	41,93	27,23	41,81	27,41	41,69	27,60	41,57	27,78
Distance.	Dep.		Lat.		Dep.		Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	57 Deg.				56 Degrees.			

TRAVERSE TABLE.

63

Distance	33 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	42,77	27,80	42,65	27,96	42,53	28,15	42,41	28,34
52	43,61	28,34	43,49	28,51	43,36	28,70	43,24	28,89
53	44,45	28,89	44,32	29,06	44,20	29,25	44,07	29,45
54	45,29	29,43	45,16	29,61	45,03	29,80	44,90	30,00
55	46,13	29,98	45,99	30,18	45,86	30,36	45,73	30,56
56	46,97	30,52	46,83	30,70	46,70	30,91	46,56	31,12
57	47,81	31,07	47,67	31,25	47,53	31,46	47,39	31,67
58	48,65	31,61	48,50	31,80	48,37	32,01	48,22	32,23
59	49,48	32,16	49,34	32,35	49,20	32,56	49,05	32,78
60	50,32	32,68	50,18	32,90	50,03	32,12	49,89	33,33
61	51,16	33,22	51,01	33,44	50,87	33,67	50,72	33,89
62	52,00	33,77	51,85	33,98	51,70	34,22	51,55	34,45
63	52,84	34,31	52,68	34,53	52,53	34,77	52,38	35,00
64	53,68	34,86	53,52	35,08	52,37	35,32	53,21	35,56
65	54,51	35,40	54,36	35,63	53,20	35,88	54,04	36,11
66	55,35	35,95	55,19	36,17	55,04	36,43	54,87	36,67
67	56,19	36,50	56,03	36,72	55,87	36,98	55,71	37,23
68	57,03	37,04	56,86	37,27	56,70	37,53	56,54	37,78
69	57,87	37,58	57,70	37,82	57,54	38,08	57,37	38,34
70	58,71	38,12	58,54	38,38	58,37	38,64	58,20	38,89
71	59,55	38,67	59,38	38,93	59,21	39,19	59,03	39,45
72	60,38	39,21	60,21	39,48	60,04	39,74	59,87	40,00
73	61,22	39,76	61,05	40,02	60,87	40,29	60,70	40,56
74	62,06	40,30	61,88	40,57	61,71	40,84	61,53	41,11
75	62,90	40,85	62,72	41,12	62,54	41,40	62,38	41,67
76	63,74	41,40	63,56	41,67	63,38	41,95	63,21	42,23
77	64,58	41,94	64,39	42,22	64,21	42,50	64,04	42,78
78	65,42	42,48	65,23	42,76	65,04	43,05	64,87	43,34
79	66,26	43,03	66,06	43,33	65,88	43,60	65,70	43,89
80	67,09	43,57	66,90	43,86	66,71	44,15	66,52	44,45
81	67,93	44,12	67,74	44,41	67,54	44,71	67,36	45,00
82	68,77	44,66	68,57	44,96	68,38	45,26	68,18	45,56
83	69,61	45,21	69,41	45,51	69,21	45,81	69,01	46,11
84	70,45	45,75	70,25	46,05	70,05	46,36	69,84	46,67
85	71,29	46,30	71,08	46,60	70,88	46,91	70,67	47,23
86	72,12	46,84	71,92	47,15	71,71	47,47	71,50	47,78
87	72,96	47,39	72,75	47,70	72,55	48,02	72,34	48,34
88	73,80	47,93	73,59	48,25	73,38	48,57	73,17	48,89
89	74,64	48,48	74,43	48,79	74,22	49,12	73,99	49,45
90	75,48	49,02	75,27	49,35	75,05	49,67	74,83	50,00
91	76,32	49,56	76,10	49,89	75,88	50,22	75,66	50,56
92	77,16	50,11	76,94	50,44	76,72	50,78	76,49	51,11
93	78,00	50,65	77,77	50,99	77,55	51,33	77,33	51,67
94	78,84	51,20	78,61	51,54	78,39	51,88	78,18	52,22
95	79,67	51,74	79,45	52,09	79,22	52,43	79,01	52,78
96	80,51	52,29	80,28	52,63	80,05	52,99	79,84	53,34
97	81,35	52,83	81,12	53,18	80,89	53,54	80,67	53,89
98	82,19	53,38	81,95	53,73	81,72	54,09	81,50	54,45
99	83,03	53,92	82,79	54,28	82,56	54,64	82,33	55,00
100	83,87	54,46	83,63	54,83	83,39	55,19	83,15	55,56
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	57 Deg.				56 Degrees			

TRAVERSE TABLE.

Distance.	34 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,83	0,56	0,83	0,56	0,82	0,57	0,82	0,57
2	1,66	1,12	1,65	1,13	1,65	1,13	1,64	1,14
3	2,49	1,69	2,47	1,69	2,47	1,70	2,46	1,71
4	3,32	2,25	3,30	2,25	3,30	2,27	3,29	2,28
5	4,15	2,81	4,13	2,81	4,12	2,83	4,11	2,85
6	4,97	3,36	4,96	3,38	4,94	3,40	4,93	3,42
7	5,80	3,91	5,79	3,94	5,77	3,96	5,75	3,99
8	6,63	4,47	6,61	4,50	6,59	4,53	6,57	4,56
9	7,46	5,03	7,44	5,06	7,42	5,10	7,39	5,13
10	8,29	5,59	8,27	5,63	8,24	5,66	8,22	5,75
11	9,12	6,15	9,09	6,19	9,06	6,23	9,04	6,27
12	9,95	6,71	9,92	6,75	9,89	6,80	9,86	6,84
13	10,78	7,27	10,75	7,32	10,71	7,36	10,68	7,41
14	11,61	7,83	11,57	7,88	11,54	7,93	11,50	7,98
15	12,44	8,39	12,40	8,44	12,36	8,49	12,33	8,55
16	13,26	8,95	13,23	9,01	13,19	9,06	13,15	9,12
17	14,09	9,51	14,05	9,57	14,01	9,63	13,98	9,69
18	14,92	10,06	14,88	10,13	14,83	10,19	14,79	10,26
19	15,75	10,62	15,71	10,69	15,66	10,76	15,61	10,83
20	16,58	11,18	16,53	11,26	16,48	11,33	16,43	11,40
21	17,41	11,74	17,36	11,82	17,31	11,89	17,25	11,97
22	18,24	12,30	18,19	12,38	18,13	12,46	18,08	12,54
23	19,07	12,86	19,01	12,95	18,95	13,03	18,90	13,11
24	19,90	13,42	19,84	13,51	19,78	13,59	19,72	13,68
25	20,73	13,98	20,67	14,08	20,60	14,16	20,54	14,25
26	21,56	14,54	21,49	14,64	21,43	14,72	21,36	14,82
27	22,38	15,10	22,32	15,20	22,25	15,29	22,19	15,36
28	23,21	15,66	23,15	15,77	23,07	15,86	23,01	15,96
29	24,04	16,22	23,97	16,33	23,90	16,42	23,83	16,53
30	24,87	16,78	24,80	16,88	24,72	16,99	24,65	17,10
31	25,70	17,33	25,62	17,45	25,55	17,56	25,47	17,67
32	26,53	17,89	26,45	18,01	26,37	18,12	26,29	18,24
33	27,36	18,45	27,28	18,57	27,20	18,69	27,12	18,81
34	28,19	19,01	28,11	19,14	28,02	19,25	27,94	19,38
35	29,02	19,57	28,93	19,70	28,84	19,82	28,76	19,95
36	29,84	20,13	29,76	20,26	29,67	20,39	29,58	20,52
37	30,67	20,69	30,59	20,82	30,49	20,95	30,40	21,09
38	31,50	21,25	31,41	21,39	31,32	21,52	31,23	21,66
39	32,33	21,81	32,24	21,95	32,14	22,09	32,05	22,23
40	33,16	22,37	33,06	22,51	32,96	22,66	32,87	22,80
41	32,99	22,93	33,89	23,07	33,79	23,22	33,69	23,37
42	34,82	23,49	34,72	23,64	34,61	23,79	34,51	23,94
43	35,65	24,04	35,54	24,20	35,44	24,35	35,33	24,51
44	36,48	24,60	36,37	24,76	36,26	24,92	36,15	25,08
45	37,31	25,16	37,20	25,33	37,08	25,49	36,98	25,65
46	38,14	25,72	38,03	25,89	37,91	26,05	37,80	26,22
47	38,96	26,27	38,85	26,45	38,73	26,62	38,62	26,79
48	39,79	26,84	39,68	27,02	39,56	27,18	39,44	27,36
49	40,62	27,40	40,51	27,58	40,39	27,75	40,26	27,93
50	41,45	27,96	41,33	28,14	41,21	28,32	41,08	28,50
Distance.	56 Deg.				55 Degrees			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

70

Distance	34 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	42,28	28,52	42,16	28,70	42,03	28,89	41,90	29,07
52	43,11	29,08	42,98	29,27	42,85	29,45	42,73	29,64
53	43,94	29,64	43,81	29,83	43,68	30,02	43,55	30,21
54	44,77	30,20	44,64	30,39	44,50	30,58	44,37	30,78
55	45,60	30,75	45,46	30,95	45,33	31,15	45,19	31,35
56	46,43	31,31	46,29	31,52	46,15	31,72	46,01	31,92
57	47,25	31,87	47,12	32,08	46,97	32,28	46,84	32,49
58	48,08	32,43	47,95	32,64	47,80	32,85	47,66	33,06
59	48,91	32,99	48,77	33,20	48,62	33,41	48,48	33,63
60	49,74	33,55	49,50	33,77	49,45	33,98	49,30	34,20
61	50,57	34,11	50,42	34,33	50,27	34,55	50,12	34,77
62	51,40	34,67	51,25	34,89	51,10	35,12	50,94	35,34
63	52,23	35,23	52,08	35,46	51,92	35,68	51,76	35,91
64	53,06	35,79	52,90	36,02	52,74	36,25	52,59	36,48
65	53,89	36,35	53,73	36,58	53,56	36,81	53,41	37,05
66	54,72	36,90	54,55	37,15	54,39	37,38	54,23	37,62
67	55,54	37,46	55,38	37,71	55,22	37,95	55,05	38,19
68	56,37	38,02	56,21	38,27	56,04	38,51	55,87	38,76
69	57,20	38,58	57,04	38,83	56,86	39,08	56,70	39,33
70	58,03	39,14	57,86	39,40	57,69	39,65	57,52	39,90
71	58,80	39,70	58,69	39,96	58,51	40,21	58,34	40,47
72	59,69	40,26	59,51	40,52	59,34	40,78	59,16	41,04
73	60,52	40,82	60,34	41,08	60,16	41,35	59,98	41,61
74	61,35	41,38	61,17	41,65	60,98	41,91	60,80	42,18
75	62,18	41,94	62,00	42,21	61,81	42,48	61,63	42,75
76	63,01	42,50	62,80	42,77	62,63	43,04	62,45	43,32
77	63,84	43,06	63,65	43,34	63,46	43,61	63,27	43,89
78	64,66	43,61	64,48	43,90	64,28	44,18	64,09	44,46
79	65,49	44,17	65,30	44,46	65,10	44,74	64,91	45,03
80	66,32	44,73	66,13	45,02	65,93	45,31	65,73	45,60
81	67,15	45,28	66,95	45,59	66,75	45,88	66,56	46,17
82	67,98	45,85	67,78	46,15	67,58	46,44	67,38	46,74
83	68,81	46,41	68,61	46,71	68,40	47,01	68,20	47,31
84	69,64	46,97	69,43	47,28	69,23	47,58	69,02	47,88
85	70,47	47,53	70,26	47,84	70,05	48,14	69,84	48,45
86	71,30	48,09	71,09	48,40	70,87	48,71	70,66	49,02
87	72,13	48,65	71,92	48,96	71,70	49,27	71,49	49,59
88	72,95	49,21	72,74	49,53	72,52	49,84	72,31	50,16
89	73,78	49,77	73,57	50,09	73,35	50,41	73,13	50,73
90	74,61	50,33	74,39	50,65	74,17	50,98	73,95	51,30
91	75,44	50,89	75,22	51,21	75,00	51,54	74,77	51,87
92	76,27	51,44	76,05	51,78	75,82	52,11	75,59	52,44
93	77,10	51,00	76,87	52,34	76,64	52,67	76,41	53,01
94	77,93	51,56	77,70	52,90	77,47	53,24	77,24	53,58
95	78,76	52,12	78,53	53,47	78,29	53,81	78,06	54,15
96	79,59	52,68	79,35	54,03	79,12	54,37	78,88	54,72
97	80,42	53,24	80,18	54,59	79,94	54,94	79,70	55,29
98	81,25	54,80	81,01	55,16	80,76	55,51	80,52	55,86
99	82,07	55,36	81,84	55,72	81,59	56,07	81,35	56,43
100	82,90	55,92	82,66	56,28	82,41	56,64	82,16	57,00
Distance	56 Deg.		55 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

TRAVERSE TABLE.

Distance.	35 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
1	0,82	0,57	0,82	0,58	0,81	0,58	0,81	0,58
2	1,64	1,15	1,63	1,15	1,63	1,16	1,62	1,17
3	2,46	1,72	2,45	1,73	2,44	1,74	2,43	1,75
4	3,28	2,29	3,27	2,30	3,26	2,32	3,25	2,34
5	4,10	2,87	4,08	2,89	4,07	2,90	4,06	2,92
6	4,91	3,44	4,90	3,44	4,88	3,48	4,87	3,51
7	5,73	4,01	5,72	4,05	5,69	4,06	5,68	4,09
8	6,55	4,59	6,53	4,62	6,51	4,65	6,49	4,67
9	7,37	5,16	7,35	5,19	7,33	5,23	7,30	5,26
10	8,19	5,74	8,17	5,77	8,14	5,81	8,12	5,84
11	9,01	6,31	8,98	6,34	8,95	6,39	8,93	6,43
12	9,83	6,88	9,80	6,93	9,77	6,97	9,74	7,01
13	10,65	7,46	10,62	7,50	10,58	7,55	10,55	7,59
14	11,47	8,03	11,43	8,08	11,40	8,13	11,36	8,18
15	12,29	8,60	12,25	8,66	12,21	8,71	12,17	8,76
16	13,11	9,18	13,07	9,23	13,02	9,29	12,99	9,35
17	13,94	9,75	13,88	9,81	13,84	9,87	13,80	9,93
18	14,74	10,33	14,70	10,39	14,65	10,45	14,61	10,51
19	15,56	10,90	15,52	10,96	15,47	11,03	15,42	11,10
20	16,38	11,47	16,33	11,54	16,28	11,61	16,23	11,68
21	17,20	12,05	17,15	12,12	17,10	12,19	17,04	12,27
22	18,02	12,62	17,98	12,70	17,91	12,78	17,85	12,85
23	18,84	13,19	18,78	13,27	18,72	13,36	18,67	13,44
24	19,66	13,77	19,60	13,85	19,54	13,94	19,48	14,02
25	20,48	14,34	20,41	14,43	20,35	14,52	20,29	14,60
26	21,30	14,92	21,23	15,00	20,17	15,10	21,10	15,19
27	22,12	15,49	22,05	15,58	21,98	15,68	21,91	15,77
28	22,93	16,06	22,87	16,17	22,79	16,26	22,73	16,36
29	23,75	16,64	23,69	16,75	23,61	16,84	23,54	16,94
30	24,57	17,21	24,50	17,31	24,42	17,42	24,35	17,53
31	25,39	17,78	25,32	17,89	25,24	18,00	25,16	18,11
32	26,21	18,35	26,13	18,47	26,05	18,58	25,97	18,70
33	27,03	18,93	26,95	19,05	26,87	19,16	26,78	19,28
34	27,85	19,50	27,77	19,62	27,68	19,74	27,59	19,86
35	28,67	20,08	28,58	20,20	28,49	20,33	28,41	20,45
36	29,49	20,65	29,40	20,78	29,31	20,91	29,22	21,03
37	30,31	21,22	30,22	21,35	30,12	21,49	30,03	21,62
38	31,13	21,80	31,03	21,93	30,94	22,07	30,84	22,20
39	31,95	22,37	31,85	22,51	31,75	22,65	31,65	22,78
40	32,77	22,94	32,67	23,09	32,56	23,23	32,46	23,37
41	33,58	23,52	33,48	23,66	33,38	23,81	33,27	23,95
42	34,40	24,09	34,30	24,24	34,19	24,39	34,09	24,54
43	35,22	24,66	35,12	24,82	35,01	24,97	34,90	25,12
44	36,04	25,24	35,93	25,39	35,82	25,55	35,71	25,71
45	36,86	25,81	36,75	25,97	36,63	26,13	36,52	26,29
46	37,68	26,39	37,57	26,55	37,45	26,71	37,33	26,87
47	38,50	26,96	38,38	27,12	38,26	27,29	38,15	27,46
48	39,32	27,53	39,20	27,70	39,07	27,88	38,96	28,04
49	40,14	28,11	40,02	28,28	39,89	28,46	39,77	28,63
50	40,96	28,68	40,83	28,86	40,71	29,03	40,58	29,21
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	55 Deg.		54 Degrees					

TRAVERSE TABLE.

72

Distance	35 Degrees							
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	41,78	29,25	41,65	29,39	41,52	29,62	41,39	29,85
52	42,60	29,83	42,47	30,01	42,33	30,20	42,20	30,38
53	43,41	30,40	43,28	30,59	43,15	30,78	43,01	30,96
54	44,23	30,97	44,10	31,17	44,06	31,36	43,83	31,55
55	45,05	31,55	44,92	31,74	45,78	31,94	44,64	32,13
56	45,87	32,12	45,73	32,32	46,59	32,52	45,45	32,72
57	46,69	32,70	46,55	32,90	46,40	33,10	46,26	33,30
58	47,51	33,27	47,37	33,43	47,22	33,68	47,07	33,88
59	48,33	33,84	48,18	34,05	48,03	34,26	47,89	34,47
60	49,15	34,41	49,00	34,63	48,85	34,84	48,69	35,05
61	49,97	34,99	49,81	35,21	49,66	35,42	49,51	35,64
62	50,79	35,56	50,63	35,78	50,47	36,00	50,32	36,22
63	51,61	36,14	51,45	36,37	51,29	36,58	51,13	36,81
64	52,42	36,71	52,27	36,94	52,10	37,17	51,94	37,39
65	53,24	37,28	53,07	37,51	52,92	37,75	52,75	37,98
66	54,06	37,86	53,90	38,09	53,73	38,33	53,56	38,56
67	54,88	38,43	54,72	38,67	54,54	38,91	54,38	39,14
68	55,70	39,01	55,53	39,24	55,36	39,49	55,19	39,73
69	56,52	39,58	56,35	39,82	56,17	40,07	56,00	40,31
70	57,34	40,15	57,16	40,40	56,99	40,65	56,81	40,89
71	58,16	40,72	57,98	40,98	57,80	41,23	57,62	41,48
72	58,98	41,30	58,80	41,55	58,62	41,81	58,43	42,07
73	59,80	41,87	59,61	42,13	59,43	42,39	59,25	42,65
74	60,62	42,45	60,43	42,71	60,24	42,97	60,06	43,23
75	61,44	43,02	61,25	43,29	61,06	43,55	60,87	43,82
76	62,25	43,59	62,07	43,86	61,87	44,13	61,68	44,40
77	63,07	44,17	62,88	44,44	62,69	44,72	62,49	44,99
78	63,89	44,74	63,70	45,02	63,50	45,30	63,31	45,57
79	64,71	45,32	64,52	45,59	64,31	45,88	64,12	46,15
80	65,53	45,89	65,33	46,17	65,13	46,46	64,93	46,74
81	66,35	46,46	66,15	46,74	65,94	47,04	65,74	47,32
82	67,17	47,03	66,96	47,32	66,76	47,62	66,55	47,91
83	67,99	47,61	67,78	47,90	67,57	48,20	67,36	48,49
84	68,81	48,18	68,60	48,47	68,39	48,78	68,17	49,08
85	69,63	48,76	69,42	49,05	69,20	49,36	68,99	49,66
86	70,45	49,33	70,23	49,63	70,01	49,94	69,80	50,24
87	71,26	49,90	71,05	50,20	70,83	50,52	70,61	50,83
88	72,08	50,48	71,87	50,78	71,64	51,10	71,42	51,41
89	72,90	51,05	72,68	51,36	72,46	51,68	72,23	52,00
90	73,72	51,62	73,50	51,94	73,27	52,26	73,04	52,58
91	74,54	52,20	74,31	52,52	74,08	52,84	73,85	53,17
92	75,36	52,77	75,13	53,10	74,90	53,42	74,67	53,75
93	76,18	53,34	75,95	53,67	75,71	54,01	75,48	54,34
94	77,00	53,92	76,77	54,25	76,53	54,59	76,29	54,92
95	77,82	54,49	77,58	54,83	77,34	55,17	77,10	55,50
96	78,64	55,07	78,40	55,41	78,15	55,75	77,91	56,09
97	79,46	55,64	79,22	55,98	78,97	56,33	78,72	56,67
98	80,28	56,21	80,03	56,56	79,78	56,91	79,53	57,26
99	81,10	56,79	80,85	57,14	80,60	57,49	80,35	57,84
100	81,91	57,36	81,66	57,71	81,41	58,07	81,16	58,43
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	55 Deg.				54 Degrees			

TRAVERSE TABLE.

Distance.	36 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
1	0,81	0,59	0,81	0,59	0,80	0,59	0,81	0,60
2	1,62	1,18	1,61	1,18	1,61	1,19	1,60	1,20
3	2,43	1,76	2,42	1,77	2,41	1,78	2,40	1,79
4	3,24	2,35	3,23	2,36	3,21	2,38	3,20	2,39
5	4,04	2,94	4,03	2,96	4,02	2,97	4,01	2,99
6	4,85	3,53	4,84	3,55	4,82	3,57	4,81	3,59
7	5,66	4,11	5,64	4,14	5,63	4,16	5,61	4,19
8	6,47	4,70	6,45	4,73	6,43	4,76	6,41	4,79
9	7,28	5,29	7,26	5,32	7,23	5,35	7,21	5,38
10	8,09	5,88	8,06	5,91	8,04	5,95	8,01	5,98
11	8,90	6,46	8,87	6,50	8,84	6,54	8,81	6,56
12	9,71	7,05	9,68	7,10	9,65	7,14	9,61	7,18
13	10,52	7,64	10,48	7,69	10,45	7,73	10,43	7,78
14	11,33	8,23	11,29	8,28	11,25	8,33	11,21	8,37
15	12,13	8,82	12,09	8,87	12,06	8,93	12,01	8,96
16	12,94	9,40	12,90	9,46	12,86	9,52	12,82	9,56
17	13,75	9,99	13,71	10,06	13,67	10,11	13,62	10,16
18	14,56	10,58	14,51	10,64	14,47	10,71	14,42	10,76
19	15,37	11,17	15,32	11,23	15,27	11,30	15,22	11,36
20	16,18	11,76	16,13	11,83	16,08	11,90	16,02	11,97
21	16,99	12,34	16,93	12,42	16,88	12,49	16,83	12,56
22	17,80	12,93	17,74	13,01	17,68	13,09	17,63	13,16
23	18,61	13,52	18,55	13,60	18,49	13,68	18,43	13,76
24	19,42	14,11	19,35	14,19	19,29	14,28	19,23	14,36
25	20,22	14,70	20,16	14,78	20,10	14,87	20,03	14,96
26	21,03	15,28	20,96	15,37	20,89	15,47	20,83	15,55
27	21,84	15,87	21,77	15,96	21,69	16,06	21,63	16,15
28	22,65	16,46	22,58	16,55	22,50	16,66	22,43	16,75
29	23,46	17,05	23,38	17,14	23,31	17,25	23,23	17,35
30	24,27	17,63	24,19	17,74	24,12	17,84	24,04	17,95
31	25,08	18,22	25,00	18,33	24,92	18,44	24,84	18,55
32	25,89	18,81	25,80	18,92	25,72	19,03	25,64	19,15
33	26,70	19,40	26,61	19,51	26,53	19,63	26,44	19,74
34	27,51	19,99	27,42	20,10	27,33	20,22	27,24	20,34
35	28,32	20,57	28,22	20,69	28,14	20,82	28,04	20,94
36	29,12	21,16	29,03	21,28	28,94	21,41	28,84	21,54
37	29,93	21,75	29,83	21,88	29,74	22,01	29,64	22,14
38	30,74	22,34	30,64	22,47	30,55	22,60	30,45	22,73
39	31,55	22,93	31,45	23,06	31,35	23,20	31,25	23,33
40	32,36	23,51	32,26	23,65	32,15	23,79	32,05	23,93
41	33,17	24,10	33,06	24,24	32,96	24,39	32,85	24,53
42	33,98	24,69	33,87	24,83	33,76	24,98	33,65	25,13
43	34,79	25,28	34,68	25,42	34,57	25,58	34,45	25,73
44	35,60	26,86	35,48	26,02	35,37	26,17	35,25	26,32
45	36,41	26,45	36,29	26,61	36,17	26,77	36,05	26,92
46	37,21	27,04	37,09	27,20	36,98	27,36	36,86	27,52
47	38,02	27,63	37,90	27,79	37,78	27,96	37,66	28,12
48	38,83	28,22	38,71	28,38	38,59	28,55	38,46	28,72
49	39,64	29,80	39,51	28,97	39,39	29,15	39,26	29,31
50	40,45	29,39	40,32	29,57	40,19	29,74	40,06	29,91
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	54 Deg.		53 Degrees					

TRAVERSE TABLE.

74

Distance.	36 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	41,26	30,98	41,13	30,16	41,00	30,34	40,86	30,51
52	42,07	30,57	41,93	30,75	41,80	30,93	41,66	31,11
53	43,87	31,15	42,74	31,34	42,60	31,53	42,47	31,71
54	43,68	31,74	43,55	31,93	43,41	32,12	43,27	32,31
55	44,49	32,33	44,35	32,52	44,21	32,72	44,07	32,91
56	45,30	33,91	45,16	33,11	45,02	33,31	44,87	33,51
57	46,11	33,49	45,96	33,70	45,82	33,91	45,67	34,11
58	46,92	34,08	46,77	34,29	46,62	34,50	46,47	34,70
59	47,73	34,67	47,58	34,88	47,43	35,10	47,27	35,30
60	48,54	35,26	48,39	35,48	48,23	35,69	48,07	35,90
61	49,35	35,85	49,19	36,07	49,04	36,28	48,88	36,50
62	50,16	36,44	49,99	36,66	49,84	36,88	49,68	37,09
63	50,97	37,03	50,88	37,25	50,64	37,47	50,48	37,69
64	51,78	37,62	51,61	37,84	51,45	38,07	51,28	38,29
65	52,59	38,21	52,42	38,43	52,25	38,66	52,08	38,89
66	53,39	38,79	53,22	38,02	53,06	39,26	52,88	39,49
67	54,20	39,38	54,03	39,62	53,86	39,85	53,68	40,08
68	55,01	39,97	54,83	40,21	54,66	40,45	54,48	40,68
69	55,82	40,56	55,65	40,80	55,47	41,04	55,28	41,28
70	56,63	41,14	56,45	41,39	56,27	41,64	56,09	41,88
71	57,44	41,73	57,26	41,98	57,07	42,23	56,89	42,48
72	58,25	42,32	58,06	42,57	57,88	42,83	57,69	43,08
73	59,06	42,91	58,87	43,16	58,68	43,42	58,49	43,68
74	59,87	43,50	59,67	43,76	59,49	44,02	59,29	44,27
75	60,68	44,08	60,48	44,35	60,29	44,61	60,09	44,87
76	61,48	44,67	61,29	44,93	60,09	45,21	60,89	45,47
77	62,29	45,26	62,09	45,53	61,90	45,80	61,69	46,07
78	63,10	45,85	62,90	46,12	62,70	46,40	62,50	46,67
79	63,91	46,44	63,70	46,71	63,51	46,99	63,30	47,26
80	64,73	47,01	64,51	47,30	64,31	47,59	64,10	47,87
81	65,53	47,61	65,32	47,90	65,11	48,18	64,90	48,46
82	66,34	48,20	66,13	48,49	65,92	48,78	65,70	49,06
83	67,15	48,79	66,93	49,08	66,72	49,37	66,50	49,66
84	67,96	49,37	67,74	49,67	67,52	49,97	67,30	50,26
85	68,77	49,96	68,54	50,26	68,33	50,56	68,10	50,86
86	69,57	50,55	69,35	50,85	69,13	51,16	68,91	51,45
87	70,38	51,14	70,16	51,44	69,94	51,75	69,71	52,05
88	71,19	51,73	71,96	52,03	70,74	52,35	70,51	52,66
89	72,00	52,31	71,77	52,62	71,54	52,95	71,31	53,26
90	72,81	52,90	72,58	53,22	72,35	53,55	72,11	53,85
91	73,61	53,49	73,39	53,81	73,15	54,13	72,91	54,45
92	74,42	54,08	74,19	54,40	73,95	54,72	73,71	55,04
93	75,23	54,66	74,99	54,99	74,76	55,32	74,52	55,64
94	76,04	55,25	75,80	55,58	75,56	55,91	75,32	56,24
95	76,85	55,84	76,61	56,17	76,37	56,51	76,12	56,84
96	77,66	56,43	77,42	56,76	77,17	57,10	76,92	57,44
97	78,47	57,02	78,22	57,35	77,97	57,70	77,72	58,03
98	79,27	57,60	79,03	57,95	78,78	58,29	78,52	58,63
99	80,08	58,19	79,83	58,54	79,58	58,89	79,32	59,23
100	80,90	58,78	80,64	58,13	80,39	59,48	80,12	59,83
Distance.	54 Deg.		53 Degrees					
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

Distance.	37 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,80	0,60	0,80	0,60	0,79	0,61	0,79	0,61
2	1,60	1,20	1,59	1,21	1,59	1,22	1,58	1,22
3	2,40	1,80	2,39	1,82	2,38	1,83	2,37	1,84
4	3,20	2,41	3,18	2,42	3,17	2,43	3,16	2,45
5	3,99	3,01	3,98	3,03	4,97	3,04	3,95	3,06
6	4,79	3,61	4,78	3,63	5,76	3,65	4,74	3,67
7	5,59	4,21	5,57	4,24	5,55	4,26	5,53	4,29
8	6,39	4,81	6,37	4,84	6,35	4,87	6,33	4,90
9	7,19	5,42	7,16	5,45	7,14	5,48	7,12	5,51
10	7,99	6,02	7,96	6,05	7,93	6,09	7,91	6,12
11	8,78	6,62	8,76	6,66	8,73	6,70	8,70	6,73
12	9,58	7,22	9,55	7,26	9,52	7,30	9,49	7,35
13	10,38	7,82	10,35	7,87	10,31	7,91	10,28	7,96
14	11,18	8,43	11,14	8,47	11,11	8,52	11,07	8,57
15	11,98	9,03	11,94	9,08	11,90	9,13	11,86	9,18
16	12,77	9,63	12,74	9,68	12,69	9,74	12,65	9,79
17	13,57	10,23	13,53	10,29	13,48	10,39	13,44	10,41
18	14,37	10,83	14,33	10,89	14,28	10,96	14,23	11,02
19	15,17	11,44	15,12	11,50	15,07	11,57	15,02	11,63
20	15,94	12,04	15,92	12,11	15,87	12,17	15,81	12,24
21	16,77	12,64	16,72	12,71	16,66	12,78	16,60	12,86
22	17,57	13,24	17,51	13,31	17,45	13,39	17,40	13,47
23	18,37	13,84	18,31	13,92	18,25	14,00	18,19	14,08
24	19,17	14,44	19,10	14,52	19,04	14,61	18,98	14,69
25	19,97	15,05	19,90	15,13	19,83	15,22	19,77	15,30
26	20,77	15,65	20,70	15,74	20,61	15,83	20,56	15,92
27	21,57	16,25	21,49	16,34	21,42	16,44	21,35	16,53
28	22,36	16,85	22,29	16,95	22,21	17,05	22,14	17,14
29	23,16	17,45	23,08	17,55	23,00	17,66	22,93	17,75
30	23,96	18,05	23,88	18,16	23,79	18,26	23,72	18,37
31	24,76	18,66	24,68	18,76	24,59	18,87	24,51	18,98
32	25,56	19,26	25,47	19,37	25,39	19,48	25,30	19,59
33	26,36	19,86	26,27	19,97	26,18	20,09	26,09	20,20
34	27,15	20,46	27,06	20,58	26,97	20,70	26,88	20,81
35	27,95	21,06	27,86	21,18	27,77	21,31	27,68	21,43
36	28,75	21,67	28,66	21,79	28,56	21,92	28,47	22,04
37	29,55	22,27	29,45	22,39	29,35	22,53	29,26	22,65
38	30,35	22,87	30,25	23,00	30,14	23,14	30,05	23,26
39	31,15	23,47	31,05	23,60	30,94	23,75	30,84	23,87
40	31,95	24,07	31,84	24,21	31,73	24,35	31,63	24,49
41	32,74	24,67	32,64	24,82	32,53	24,96	32,42	25,10
42	33,54	25,28	33,43	25,42	33,32	25,57	33,21	25,71
43	34,34	25,88	34,23	26,03	34,11	26,18	34,00	26,32
44	35,14	26,48	35,02	26,63	34,91	26,79	34,79	26,94
45	35,94	27,08	35,82	27,24	35,70	27,39	35,58	27,55
46	36,74	27,68	36,62	27,84	36,49	28,00	36,37	28,16
47	37,54	28,29	37,41	28,45	37,28	28,61	37,16	28,77
48	38,34	28,89	38,21	29,05	38,08	29,22	37,96	29,38
49	39,14	29,49	39,00	29,66	38,87	29,83	38,75	30,00
50	39,93	30,09	39,80	30,26	39,67	30,44	39,53	30,61
Distance.	53 Deg.				52 Degrees.			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

76

37 Degrees									
Distance	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
51	40,73	30,69	40,60	30,87	40,46	31,05	40,33	31,22	
52	41,52	31,29	41,39	31,47	41,25	31,66	41,12	31,83	
53	42,32	31,90	42,19	32,08	42,05	32,26	41,91	32,45	
54	43,12	32,50	42,98	32,68	42,84	32,87	42,70	33,06	
55	43,92	33,10	43,78	33,29	43,63	33,48	43,49	33,67	
56	44,72	33,70	44,58	33,89	44,43	34,09	44,28	34,28	
57	45,51	34,30	45,37	34,50	45,22	34,70	45,07	34,88	
58	46,31	34,91	46,17	35,10	46,01	35,31	45,86	35,51	
59	47,11	35,51	46,96	35,71	46,80	35,92	46,65	36,12	
60	47,92	36,11	47,76	36,32	47,60	36,53	47,44	36,73	
61	48,72	36,71	48,56	36,92	48,39	37,13	48,23	37,34	
62	49,52	37,31	49,35	37,53	49,19	37,74	49,02	37,96	
63	50,31	37,91	50,15	38,13	49,98	38,35	49,81	38,57	
64	51,11	38,52	50,94	38,74	50,77	38,96	50,60	39,18	
65	51,91	39,12	51,74	39,34	51,57	39,57	51,40	39,79	
66	52,71	39,72	52,54	39,95	52,36	40,18	52,19	40,40	
67	53,51	40,32	53,33	40,55	53,15	40,79	52,98	41,02	
68	54,31	40,92	54,13	41,16	53,94	41,40	53,77	41,63	
69	55,11	41,53	54,92	41,76	54,74	42,00	54,56	42,24	
70	55,90	42,13	55,72	42,37	55,53	42,61	55,35	42,85	
71	56,70	42,73	56,52	42,97	56,35	43,22	56,14	43,47	
72	57,50	43,33	57,31	43,58	57,14	43,43	56,93	44,08	
73	58,30	43,94	58,11	44,18	57,93	44,44	57,72	44,69	
74	59,10	44,53	58,90	44,79	58,73	45,05	58,51	45,30	
75	59,90	45,14	59,70	45,39	59,52	45,66	59,30	45,91	
76	60,70	45,74	60,49	46,00	60,31	46,27	60,09	46,53	
77	61,50	46,34	61,29	46,60	61,11	46,88	60,88	47,14	
78	62,30	46,94	62,09	47,21	61,92	47,48	61,68	47,75	
79	63,10	47,54	62,88	47,81	62,69	48,09	62,47	48,36	
80	63,89	48,15	63,68	48,42	63,47	48,70	63,26	48,98	
81	64,69	48,75	64,48	49,03	64,26	49,31	64,05	49,59	
82	65,49	49,35	65,27	49,63	65,05	49,92	64,84	50,20	
83	66,29	49,95	66,07	50,24	65,85	50,53	65,63	50,81	
84	67,09	50,55	66,86	50,84	66,64	51,14	66,42	51,43	
85	67,89	51,16	67,66	51,45	67,43	51,75	67,21	52,04	
86	68,68	51,76	68,46	52,05	68,23	52,35	68,00	52,65	
87	69,48	52,36	69,25	52,66	69,02	52,96	68,79	53,26	
88	70,28	52,96	70,05	53,26	69,81	53,57	69,58	53,87	
89	71,08	53,56	70,84	53,87	70,60	54,18	70,37	54,49	
90	71,88	54,16	71,64	54,48	71,40	54,79	71,16	55,10	
91	72,68	54,77	72,44	55,08	72,19	55,40	72,95	55,71	
92	73,48	55,37	73,23	55,69	72,99	56,01	73,74	56,32	
93	74,27	55,97	74,03	56,29	73,78	56,61	73,53	56,94	
94	75,07	56,57	74,82	56,90	74,57	57,22	74,33	57,55	
95	75,87	57,17	75,62	57,50	75,37	57,83	75,12	58,16	
96	76,67	57,78	76,42	58,11	76,16	58,34	75,91	58,77	
97	77,47	58,38	77,21	58,71	77,95	59,05	76,70	59,38	
98	78,27	58,98	78,01	59,32	78,75	59,66	77,49	60,00	
99	79,07	59,58	78,80	59,92	79,54	60,27	78,28	60,61	
100	79,86	60,18	79,60	60,53	80,33	60,88	79,07	61,23	
Distance	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		
	53 Deg.				52 Degrees				

Distance	38 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,78	0,62	0,78	0,62	0,78	0,63	0,78	0,63
2	1,58	1,23	1,57	1,24	1,57	1,25	1,56	1,25
3	2,36	1,85	2,36	1,86	2,35	1,87	2,34	1,88
4	3,15	2,46	3,14	2,48	3,13	2,49	3,12	2,50
5	3,94	3,08	3,93	3,10	3,91	3,11	3,90	3,13
6	4,73	3,69	4,71	3,72	4,70	3,74	4,68	3,76
7	5,52	4,31	5,50	4,33	5,48	4,36	5,46	4,38
8	6,30	4,93	6,28	4,95	6,26	4,98	6,24	5,01
9	7,09	5,54	7,07	5,57	7,04	5,60	7,02	5,63
10	7,88	6,16	7,85	6,19	7,83	6,23	7,80	6,26
11	8,67	6,77	8,64	6,81	8,61	6,85	8,58	6,89
12	9,46	7,39	9,42	7,43	9,39	7,47	9,36	7,51
13	10,24	8,00	10,21	8,05	10,17	8,09	10,14	8,14
14	11,03	8,62	10,99	8,67	10,96	8,72	10,92	8,76
15	11,82	9,24	11,78	9,29	11,74	9,34	11,70	9,39
16	12,61	9,85	12,56	9,91	12,52	9,96	12,48	10,02
17	13,40	10,47	13,35	10,52	13,31	10,59	13,26	10,64
18	14,18	11,08	14,13	11,14	14,09	11,21	14,04	11,27
19	14,97	11,70	14,92	11,76	14,87	11,83	14,82	11,89
20	15,76	12,31	15,71	12,38	15,65	12,45	15,60	12,52
21	16,55	12,93	16,49	13,00	16,44	13,07	16,38	13,14
22	17,34	13,55	17,27	13,62	17,22	13,70	17,16	13,77
23	18,12	14,16	18,06	14,24	18,00	14,32	17,94	14,40
24	18,91	14,78	18,85	14,86	18,78	14,94	18,72	15,02
25	19,70	15,39	19,63	15,46	19,57	15,57	19,50	15,65
26	20,49	16,01	20,41	16,08	20,35	16,19	20,28	16,27
27	21,28	16,63	21,20	16,70	21,13	16,81	21,06	16,90
28	22,06	17,24	21,99	17,31	21,92	17,43	21,84	17,53
29	22,85	17,86	22,77	17,93	22,70	18,06	22,62	18,15
30	23,64	18,47	23,56	18,57	23,48	18,68	23,39	18,78
31	24,43	19,09	24,35	19,19	24,26	19,30	24,18	19,40
32	25,22	19,70	25,13	19,81	25,04	19,92	24,96	20,03
33	26,00	20,32	25,92	20,43	25,83	20,54	25,74	20,66
34	26,79	20,93	26,70	21,05	26,61	21,17	26,52	21,28
35	27,58	21,55	27,49	21,67	27,39	21,79	27,30	21,91
36	28,37	22,17	28,28	22,29	28,18	22,41	28,08	22,53
37	29,16	22,78	29,06	22,91	28,96	23,04	28,86	23,16
38	29,94	23,40	29,84	23,53	29,74	23,66	29,64	23,79
39	30,73	24,01	30,63	24,14	30,53	24,28	30,42	24,41
40	31,52	24,63	31,41	24,76	31,30	24,90	31,20	25,04
41	32,31	25,24	32,20	25,38	32,09	25,52	31,98	25,66
42	33,10	25,86	32,98	26,00	32,87	26,15	32,76	26,29
43	33,88	26,47	33,77	26,62	33,65	26,77	33,54	26,92
44	34,67	27,09	34,55	27,24	34,44	27,39	34,32	27,54
45	35,46	27,71	35,34	27,86	35,22	28,02	35,10	28,17
46	36,25	28,32	36,12	28,48	36,00	28,64	35,88	28,79
47	37,04	28,94	36,91	29,10	36,78	29,26	36,66	29,42
48	37,82	29,55	37,69	29,72	37,57	29,88	37,44	30,05
49	38,61	30,17	38,48	30,34	38,35	30,50	38,22	30,67
50	39,40	30,78	39,27	30,96	39,13	31,13	38,99	31,30
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	52 Deg.				51 Degrees			

TRAVERSE TABLE.

78

Distance	38 Degrees							
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
51	40,19	31,40	40,05	31,57	39,91	31,75	39,77	31,92
52	40,98	32,02	40,84	32,19	40,70	32,37	40,55	32,55
53	41,77	32,63	41,62	32,81	41,48	33,00	41,33	33,17
54	42,55	33,25	42,41	33,43	42,26	33,62	42,11	33,80
55	43,34	33,86	43,19	34,05	43,05	34,24	42,89	34,43
56	44,13	34,48	43,98	34,67	43,83	34,86	43,67	35,05
57	44,92	35,10	44,76	35,29	44,61	35,49	44,45	35,68
58	45,71	35,71	45,55	35,91	45,39	36,11	45,23	36,30
59	46,49	36,33	46,33	36,53	46,18	36,73	46,01	36,93
60	47,28	36,94	47,12	37,15	46,96	37,35	46,79	37,56
61	48,07	37,56	47,90	37,76	47,74	37,97	47,57	38,18
62	48,87	38,17	48,69	38,38	48,52	38,60	48,35	38,81
63	49,65	38,79	49,47	39,00	49,31	39,22	49,13	39,43
64	50,43	39,40	50,26	39,62	50,09	39,84	49,91	40,06
65	51,22	40,02	51,04	40,24	50,87	40,47	50,69	40,69
66	52,01	40,64	51,83	40,86	51,66	41,09	51,47	41,31
67	52,80	41,25	52,61	41,48	52,44	41,71	52,25	41,94
68	53,59	41,87	53,40	42,10	53,22	42,34	53,04	42,56
69	54,37	42,48	54,18	42,72	54,00	42,96	53,81	43,19
70	55,16	43,10	54,97	43,34	54,78	43,58	54,59	43,81
71	55,95	43,71	55,76	43,95	55,57	44,20	55,37	44,44
72	56,74	44,33	56,54	44,57	56,35	44,82	56,15	45,06
73	57,53	44,94	57,33	45,19	57,13	45,45	56,93	45,69
74	58,31	45,56	58,11	45,81	57,92	46,07	57,71	46,32
75	59,10	46,18	58,90	46,43	58,70	46,69	58,49	46,94
76	59,89	46,79	59,68	47,04	59,48	47,31	59,21	47,57
77	60,68	47,41	60,47	47,66	60,27	47,94	60,05	48,20
78	61,46	48,02	61,25	48,28	61,05	48,56	60,83	48,82
79	62,25	48,64	62,04	48,90	61,83	49,18	61,61	49,45
80	63,04	49,25	62,83	49,53	62,61	49,80	62,39	50,07
81	63,83	49,87	63,61	50,15	63,39	50,42	63,17	50,70
82	64,62	50,49	64,40	50,77	64,18	51,05	63,96	51,33
83	65,41	51,10	65,18	51,38	64,96	51,67	64,74	51,95
84	66,19	51,72	65,97	52,00	65,74	52,29	65,52	52,58
85	66,98	52,33	66,75	52,62	66,52	52,92	66,30	53,20
86	67,77	52,95	67,54	53,24	67,31	53,54	67,08	53,83
87	68,56	53,57	68,32	53,86	68,10	54,16	67,86	54,46
88	69,35	54,18	69,11	54,48	68,88	54,79	68,64	55,08
89	70,13	54,80	69,89	55,10	69,67	55,41	69,42	55,71
90	70,92	55,41	70,68	55,72	70,44	56,03	70,19	56,33
91	71,71	56,03	71,46	56,34	71,22	56,65	70,97	56,96
92	72,50	56,64	72,25	56,96	71,00	57,27	71,75	57,59
93	73,29	57,26	73,03	57,58	72,78	57,90	72,53	58,21
94	74,07	57,87	73,82	58,19	73,57	58,52	73,31	58,84
95	74,86	58,49	74,60	58,81	74,35	59,14	74,09	59,46
96	75,65	59,11	75,39	59,43	75,13	59,76	74,87	60,09
97	76,44	59,72	76,17	60,05	75,92	60,39	75,65	60,72
98	77,23	60,34	76,96	60,67	76,70	61,01	76,42	61,34
99	78,01	60,95	77,74	61,29	77,48	61,63	77,21	61,97
100	78,80	61,57	78,53	61,91	78,26	62,25	77,99	62,59
Distance	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
52 Deg.				51 Degrees				

TRAVERSE TABLE.

Distance	39 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
1	0,78	0,63	0,77	0,63	0,77	0,64	0,77	0,64
2	1,55	1,26	1,55	1,27	1,54	1,27	1,54	1,28
3	2,33	1,89	2,32	1,90	2,32	1,91	2,31	1,92
4	3,11	2,52	3,10	2,53	3,09	2,54	3,08	2,56
5	3,89	3,15	3,87	3,16	3,86	3,18	3,84	3,20
6	4,67	3,78	4,65	3,80	4,63	3,82	4,61	3,84
7	5,44	4,41	5,42	4,43	5,40	4,45	5,38	4,48
8	6,22	5,04	6,20	5,07	6,17	5,09	6,15	5,12
9	6,99	5,66	6,97	5,69	6,95	5,73	6,92	5,76
10	7,77	6,29	7,74	6,33	7,72	6,36	7,69	6,39
11	8,55	6,92	8,52	6,96	8,49	6,99	8,46	7,03
12	9,33	7,55	9,29	7,59	9,26	7,63	9,23	7,67
13	10,10	8,18	10,07	8,23	10,03	8,27	10,00	8,31
14	10,88	8,81	10,84	8,87	10,80	8,91	10,75	8,95
15	11,65	9,44	11,62	9,49	11,58	9,54	11,53	9,59
16	12,43	10,07	12,39	10,13	12,35	10,18	12,30	10,23
17	13,21	10,70	13,16	10,76	13,12	10,81	13,07	10,87
18	13,99	11,33	13,94	11,39	13,89	11,45	13,84	11,51
19	14,77	11,96	14,71	12,02	14,66	12,09	14,61	12,15
20	15,54	12,59	15,49	12,65	15,43	12,72	15,38	12,79
21	16,32	13,22	16,26	13,29	16,20	13,36	16,15	13,43
22	17,10	13,85	17,04	13,92	16,98	13,99	16,92	14,07
23	17,87	14,47	17,81	14,55	17,75	14,63	17,68	14,71
24	18,65	15,10	18,58	15,18	18,52	15,26	18,45	15,35
25	19,43	15,73	19,36	15,82	19,29	15,90	19,22	15,98
26	20,21	16,36	20,13	16,45	20,06	16,53	19,99	16,62
27	20,98	16,99	20,91	17,08	20,84	17,17	20,76	17,26
28	21,76	17,62	21,69	17,72	21,61	17,81	21,53	17,90
29	22,54	18,25	22,46	18,35	22,38	18,44	22,29	18,54
30	23,32	18,88	23,23	18,98	23,15	19,08	23,07	19,18
31	24,09	19,51	24,01	19,61	23,93	19,72	23,83	19,82
32	24,87	20,14	24,78	20,25	24,69	20,35	24,60	20,46
33	25,65	20,77	25,55	20,88	25,47	20,99	25,37	21,10
34	26,43	21,40	26,33	21,51	26,24	21,63	26,14	21,74
35	27,20	22,03	27,10	22,15	27,01	22,26	26,91	22,38
36	27,98	22,65	27,88	22,78	27,78	22,90	27,68	23,02
37	28,75	23,28	28,65	23,41	28,55	23,53	28,45	23,66
38	29,53	23,91	29,42	24,05	29,33	24,17	29,22	24,30
39	30,31	24,54	30,20	24,68	30,09	24,81	29,99	24,93
40	31,09	25,17	30,98	25,31	30,87	25,44	30,75	25,58
41	31,87	25,80	31,75	25,94	31,64	26,08	31,52	26,22
42	32,64	26,43	32,52	26,57	32,41	26,72	32,29	26,86
43	33,42	27,06	33,30	27,21	33,18	27,35	33,06	27,50
44	34,20	27,70	34,07	27,84	33,95	27,99	33,83	28,13
45	34,97	28,32	34,85	28,47	34,73	28,62	34,60	28,77
46	35,75	28,95	35,62	29,11	35,50	29,26	35,37	29,41
47	36,53	29,58	36,39	29,74	36,27	29,90	36,14	30,05
48	37,30	30,20	37,17	30,37	37,04	30,53	36,91	30,69
49	38,08	30,83	37,94	31,01	37,81	31,17	37,68	31,33
50	38,86	31,47	38,72	31,64	38,58	31,80	38,44	31,97
Distance.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	51 Deg.				50 Degrees			

TRAVERSE TABLE.

80

Distance	39 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	39,64	32,10	39,49	32,27	39,35	32,44	39,21	32,61
52	40,41	32,72	40,27	32,90	40,13	33,08	39,98	33,25
53	41,19	33,35	41,04	33,54	40,90	33,71	40,75	33,89
54	41,97	33,98	41,82	34,17	41,67	34,34	41,52	34,53
55	42,75	34,61	42,59	34,80	42,44	34,98	42,29	35,17
56	43,52	35,24	43,36	35,43	43,21	35,62	43,06	35,81
57	44,30	35,87	44,15	36,07	43,99	36,26	43,83	36,45
58	45,07	36,50	44,93	36,70	44,76	36,89	44,59	37,08
59	45,85	37,13	45,70	37,33	45,53	37,53	45,36	37,72
60	46,63	37,76	46,46	37,96	46,30	38,17	46,13	38,37
61	47,41	38,39	47,24	38,60	47,07	38,80	46,90	39,01
62	48,18	39,02	48,01	39,23	47,84	39,43	47,67	39,64
63	48,96	39,65	48,79	39,86	48,61	40,07	48,47	40,28
64	49,74	40,28	49,56	40,50	49,39	40,70	49,21	40,92
65	50,51	40,90	50,34	41,13	50,16	41,35	49,98	41,56
66	51,29	41,53	51,11	41,76	50,93	41,98	50,74	42,20
67	52,07	42,16	51,88	42,39	51,70	42,62	51,51	42,84
68	52,85	42,79	52,66	43,03	52,47	43,25	52,28	43,48
69	53,62	43,42	53,43	43,66	53,24	43,89	53,05	44,12
70	54,40	44,05	54,21	44,29	54,01	44,53	53,82	44,76
71	55,18	44,68	54,98	44,92	54,79	45,16	54,59	45,40
72	55,96	45,31	55,76	45,56	55,56	45,80	55,36	46,04
73	56,73	45,94	56,53	46,19	56,33	46,43	56,13	46,68
74	57,51	46,57	57,30	46,82	57,10	47,07	56,90	47,32
75	58,29	47,20	58,08	47,46	57,87	47,71	57,66	47,96
76	59,06	47,83	58,85	48,09	58,65	48,34	58,43	48,60
77	59,84	48,46	59,63	48,72	59,42	48,98	59,20	49,23
78	60,62	49,08	60,40	49,36	60,19	49,61	59,97	49,87
79	61,39	49,71	61,17	49,99	60,96	50,25	60,74	50,51
80	62,17	50,35	61,95	50,62	61,73	50,89	61,51	51,16
81	62,95	50,98	62,73	51,25	62,50	51,52	62,28	51,79
82	63,73	51,60	63,50	51,88	63,27	52,16	63,05	52,43
83	64,50	52,23	64,27	52,52	64,05	52,79	63,81	53,07
84	65,28	52,86	65,05	53,15	64,82	53,43	64,58	53,71
85	66,06	53,49	65,82	53,78	65,59	54,07	65,35	54,35
86	66,83	54,12	66,60	54,41	66,36	54,70	66,12	54,99
87	67,61	54,75	67,37	55,05	67,13	55,34	66,89	55,63
88	68,39	55,38	68,14	55,68	67,91	55,97	67,66	56,27
89	69,17	56,01	68,92	56,32	68,68	56,61	68,43	56,90
90	69,94	56,64	69,70	56,94	69,45	57,25	69,20	57,55
91	70,72	57,27	70,47	57,58	70,22	57,88	69,97	58,19
92	71,50	57,90	71,24	58,21	70,99	58,52	70,73	58,83
93	72,28	58,53	72,02	58,84	71,76	59,16	71,50	59,47
94	73,05	59,16	72,79	59,48	72,53	59,79	72,27	60,11
95	73,83	59,78	73,57	60,11	73,31	60,43	73,04	60,76
96	74,61	60,41	74,34	60,74	74,08	61,06	73,81	61,38
97	75,38	61,04	75,11	61,38	74,85	61,70	74,58	62,02
98	76,16	61,67	75,89	62,01	75,62	62,34	75,35	62,66
99	76,94	62,30	76,66	62,63	76,39	62,97	76,12	63,30
100	77,72	62,93	77,44	63,27	77,16	63,61	76,88	63,94
Distance	50 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
51	Deg.							

TRAVERSE TABLE.

Distance.	40 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,77	0,64	0,76	0,65	0,76	0,65	0,76	0,65
2	1,53	1,29	1,53	1,29	1,52	1,30	1,52	1,31
3	2,30	1,93	2,29	1,94	2,28	1,95	2,27	1,97
4	3,06	2,57	3,05	2,58	3,05	2,60	3,03	2,61
5	3,83	3,21	3,82	3,23	3,80	3,25	3,78	3,26
6	4,60	3,86	4,58	3,88	4,56	3,90	4,55	3,92
7	5,36	4,50	5,34	4,52	5,32	4,55	5,30	4,57
8	6,13	5,14	6,11	5,17	6,08	5,20	6,06	5,22
9	6,89	5,79	6,87	5,81	6,84	5,85	6,82	5,88
10	7,63	6,40	7,63	6,46	7,60	6,49	7,58	6,56
11	8,43	7,07	8,40	7,11	8,37	7,14	8,33	7,28
12	9,19	7,71	9,16	7,75	9,13	7,79	9,09	7,85
13	9,96	8,36	9,92	8,40	9,89	8,44	9,85	8,49
14	10,72	9,00	10,69	9,05	10,65	9,09	10,61	9,14
15	11,49	9,64	11,45	9,69	11,41	9,74	11,37	9,79
16	12,26	10,29	12,21	10,34	12,17	10,39	12,12	10,45
17	13,02	10,93	12,98	10,98	12,93	11,04	12,88	11,09
18	13,79	11,57	13,74	11,63	13,69	11,69	13,64	11,75
19	14,55	12,21	14,50	12,28	14,46	12,34	14,40	12,40
20	15,32	12,86	15,27	12,92	15,21	12,99	15,15	13,06
21	16,09	13,50	16,03	13,57	15,97	13,64	15,91	13,71
22	16,85	14,14	16,79	14,21	16,73	14,29	16,67	14,36
23	17,62	14,79	17,55	14,86	17,49	14,94	17,43	15,01
24	18,39	15,43	18,32	15,51	18,25	15,59	18,18	15,67
25	19,15	16,07	19,08	16,15	19,01	16,23	18,94	16,32
26	19,92	16,71	19,84	16,80	19,77	16,88	19,70	16,97
27	20,68	17,36	20,61	17,44	20,53	17,53	20,46	17,63
28	21,45	18,00	21,37	18,09	21,29	18,18	21,22	18,28
29	22,22	18,64	22,13	18,74	22,05	18,83	21,97	18,93
30	22,98	19,28	22,90	19,38	22,81	19,48	22,73	19,58
31	23,75	19,93	23,66	20,03	23,57	20,13	23,49	20,24
32	24,51	20,57	24,42	20,68	24,33	20,78	24,24	20,89
33	25,28	21,21	25,19	21,32	25,09	21,43	25,00	21,54
34	26,05	21,86	25,95	21,97	25,85	22,08	25,76	22,20
35	26,81	22,50	26,71	22,61	26,61	22,73	26,52	22,85
36	27,58	23,14	27,48	23,26	27,37	23,38	27,28	23,50
37	28,34	23,79	28,24	23,91	28,13	24,03	28,03	24,15
38	29,11	24,43	29,00	24,55	28,89	24,68	28,79	24,81
39	29,88	25,07	29,76	25,20	29,65	25,33	29,55	25,46
40	30,64	25,71	30,53	25,85	30,42	25,98	30,30	26,11
41	31,41	26,36	31,29	26,49	31,18	26,63	31,06	26,76
42	32,17	26,99	32,06	27,14	31,94	27,28	31,82	27,42
43	32,94	27,64	32,82	27,78	32,70	27,93	32,58	28,07
44	33,71	28,28	33,58	28,43	33,46	28,57	33,34	28,72
45	34,47	28,93	34,34	29,08	34,22	29,22	34,09	29,38
46	35,24	29,57	35,11	29,72	34,98	29,87	34,85	30,03
47	36,00	30,21	35,87	30,37	35,74	30,52	35,61	30,68
48	36,77	30,86	36,63	31,01	36,50	31,17	36,37	31,33
49	37,54	31,50	37,40	31,66	37,26	31,82	37,13	31,99
50	38,30	32,14	38,16	32,31	38,02	32,47	37,88	32,64
Distance.	50 Deg.				53 Degrees			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

82

Distance.	40 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	39,07	32,78	38,93	32,95	38,78	33,12	38,64	33,29
52	39,83	33,43	39,69	33,60	39,54	33,77	39,40	33,94
53	40,60	34,07	40,45	34,24	40,30	34,42	40,15	34,60
54	41,37	34,71	41,21	34,89	41,06	35,07	40,91	35,25
55	42,13	35,36	41,98	35,54	41,82	35,72	41,67	35,90
56	42,90	36,00	42,74	36,18	42,58	36,37	42,43	36,56
57	43,66	36,64	43,50	36,83	43,34	37,02	43,19	37,21
58	44,43	37,28	44,27	37,47	44,10	37,67	43,95	37,86
59	45,20	37,93	45,03	37,12	44,86	38,31	44,70	38,52
60	45,96	38,57	45,79	38,77	45,63	38,97	45,45	39,17
61	46,73	39,21	46,56	39,41	46,39	39,62	46,21	39,82
62	47,49	39,85	47,32	40,06	47,15	40,27	46,97	40,47
63	48,26	40,50	48,08	40,71	47,91	40,91	47,73	41,13
64	49,03	41,14	48,85	41,35	48,67	41,56	48,49	41,78
65	49,79	41,78	49,61	42,00	49,43	42,21	49,24	42,43
66	50,56	42,43	50,37	42,64	50,19	42,86	50,00	43,08
67	51,32	43,07	51,14	43,29	50,95	43,51	50,76	43,74
68	52,09	43,71	51,90	43,94	51,71	44,16	51,52	44,39
69	52,86	44,35	52,66	44,58	52,47	44,81	52,28	45,04
70	53,62	45,00	53,43	45,23	53,23	45,46	53,04	45,69
71	54,39	45,64	54,19	45,87	53,99	46,11	53,79	46,35
72	55,16	46,28	54,95	46,52	54,75	46,76	54,55	47,00
73	55,92	46,92	55,72	47,17	55,51	47,41	55,30	47,65
74	56,69	47,57	56,48	47,81	56,27	48,06	56,06	48,31
75	57,46	48,21	57,24	48,46	57,03	48,69	56,82	48,96
76	58,22	48,85	58,00	49,10	57,79	49,36	57,58	49,61
77	58,99	49,50	58,77	49,75	58,55	49,99	58,34	50,26
78	59,75	50,14	59,53	50,40	59,31	50,64	59,09	50,92
79	60,52	50,77	60,29	51,04	60,07	51,31	59,85	51,57
80	61,28	51,42	61,06	51,69	60,83	51,95	60,61	52,22
81	62,05	52,07	61,82	52,34	61,59	52,61	61,36	52,87
82	62,82	52,71	62,58	52,98	62,35	53,25	61,12	53,53
83	63,58	53,35	63,35	53,63	63,11	53,90	62,88	54,18
84	64,35	54,00	64,11	54,27	63,87	54,55	63,64	54,83
85	65,11	54,64	64,87	54,92	64,63	55,20	64,40	55,49
86	65,88	55,28	65,64	55,57	65,39	55,85	65,15	56,14
87	66,65	56,02	66,40	56,21	66,15	56,50	65,91	56,79
88	67,41	56,57	67,16	56,86	66,91	57,15	66,67	57,45
89	68,18	57,21	67,93	57,50	67,67	57,80	67,43	58,10
90	68,94	57,85	68,69	58,15	68,44	58,45	68,18	58,76
91	69,71	58,49	69,45	58,80	69,19	59,10	68,94	59,40
92	70,48	59,14	70,22	59,44	69,96	59,75	69,70	60,05
93	71,24	59,78	70,98	60,09	70,72	60,40	70,46	60,71
94	72,01	60,42	71,74	60,74	71,48	61,05	71,20	61,36
95	72,77	61,07	72,51	61,38	72,24	61,70	71,96	62,01
96	73,54	61,71	73,27	62,02	73,00	62,35	72,72	62,67
97	74,31	62,35	74,03	62,67	73,76	63,00	73,48	63,32
98	75,07	63,00	74,80	63,32	74,52	63,65	74,24	63,97
99	75,84	63,64	75,56	63,97	75,28	64,29	74,99	64,63
100	76,60	64,28	76,32	64,61	76,04	64,95	75,76	65,28
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	50 Deg.							
49 Degrees								

TRAVERSE TABLE.

Distance.	41 Degrees.							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
1	0,76	0,66	0,75	0,66	0,75	0,66	0,75	0,67
2	1,51	1,31	1,50	1,32	1,50	1,33	1,49	1,33
3	2,26	1,90	2,26	1,98	2,25	1,99	2,24	2,00
4	3,02	2,62	3,01	2,63	3,00	2,65	2,98	2,66
5	3,77	3,28	3,76	3,30	3,75	3,31	3,73	3,33
6	4,53	3,94	4,51	3,96	4,49	3,98	4,48	4,00
7	5,28	4,59	5,26	4,62	5,24	4,64	5,22	4,66
8	6,04	5,25	6,02	5,28	5,99	5,30	5,97	5,33
9	6,79	5,91	6,77	5,93	6,74	5,96	6,72	5,99
10	7,55	6,56	7,52	6,59	7,49	6,63	7,46	6,66
11	8,30	7,22	8,27	7,25	8,24	7,29	8,21	7,33
12	9,06	7,87	9,02	7,92	8,99	7,95	8,95	7,99
13	9,81	8,53	9,77	8,57	9,74	8,61	9,70	8,66
14	10,57	9,18	10,53	9,23	10,49	9,28	10,45	9,32
15	11,32	9,84	11,28	9,89	11,24	9,94	11,19	9,99
16	12,08	10,50	12,03	10,55	11,98	10,60	11,94	10,66
17	12,83	11,15	12,78	11,21	12,73	11,27	12,68	11,32
18	13,59	11,81	13,53	11,87	13,48	11,93	13,43	11,99
19	14,34	12,46	14,29	12,53	14,23	12,59	14,18	12,65
20	15,09	13,12	15,04	13,19	14,98	13,25	14,92	13,32
21	15,85	13,78	15,79	13,85	15,73	13,92	15,67	13,98
22	16,60	14,43	16,54	14,51	16,48	14,58	16,41	14,65
23	17,36	15,09	17,30	15,16	17,23	15,24	17,16	15,32
24	18,11	15,75	18,05	15,82	17,98	15,90	17,91	15,98
25	18,87	16,39	18,80	16,48	18,73	16,57	18,65	16,65
26	19,62	17,05	19,55	17,14	19,47	17,23	19,40	17,31
27	20,38	17,70	20,30	17,80	20,22	17,89	20,14	17,98
28	21,13	18,36	21,05	18,46	20,97	18,56	20,89	18,65
29	21,89	19,02	21,81	19,12	21,72	19,22	21,64	19,31
30	22,64	19,68	22,56	19,78	22,47	19,88	22,38	19,98
31	23,39	20,34	23,31	20,44	23,22	20,54	23,13	20,64
32	24,15	20,99	24,06	21,10	23,97	21,21	23,87	21,31
33	24,91	21,65	24,81	21,76	24,72	21,86	24,62	21,97
34	25,66	22,34	25,56	22,42	25,47	22,53	25,37	22,64
35	26,42	22,96	26,32	23,08	26,21	23,19	26,11	23,31
36	27,17	23,62	27,07	23,74	26,96	23,86	26,86	23,97
37	27,93	24,27	27,82	24,39	27,71	24,52	27,60	24,64
38	28,68	24,93	28,57	25,05	28,46	25,18	28,35	25,31
39	29,44	25,59	29,32	25,71	29,21	25,85	29,10	25,97
40	30,19	26,24	30,07	26,37	29,96	26,51	29,84	26,64
41	30,94	26,90	30,83	27,03	30,71	27,17	30,59	27,30
42	31,70	27,55	31,58	27,69	31,46	27,83	31,33	27,97
43	32,45	28,21	32,33	28,35	32,20	28,49	32,08	28,63
44	33,21	28,87	33,08	29,01	32,94	29,16	32,83	29,30
45	33,96	29,52	33,83	29,67	33,69	29,82	33,57	29,97
46	34,72	30,18	34,59	30,33	34,44	30,48	34,32	30,63
47	35,47	30,83	35,34	30,99	35,19	31,15	35,06	31,30
48	36,23	31,49	36,09	31,65	35,94	31,81	35,81	31,96
49	36,98	32,15	36,84	32,31	36,69	32,47	36,56	32,63
50	37,74	32,80	37,59	32,97	37,45	33,13	37,30	33,29
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	49 Deg.				48 Degrees.			

TRAVERSE TABLE. 84

Distance	41 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	38,49	33,46	38,34	33,63	38,20	33,79	38,05	33,96
52	39,25	34,12	39,10	34,29	38,95	34,46	38,80	34,63
53	40,00	34,77	39,85	34,95	39,70	35,12	39,54	35,29
54	40,76	35,43	40,60	35,60	40,44	35,78	40,29	35,96
55	41,51	36,08	41,35	36,26	41,19	36,45	41,03	36,62
56	42,27	36,74	42,10	36,92	41,94	37,11	41,78	37,29
57	43,02	37,40	42,86	37,58	42,69	37,77	42,53	37,96
58	43,77	38,05	43,61	38,24	43,44	38,44	43,27	38,62
59	44,53	38,71	44,36	38,90	44,19	39,10	44,02	39,29
60	45,28	39,36	45,11	39,56	44,94	39,76	44,76	39,95
61	46,04	40,02	45,86	40,16	45,69	40,42	45,51	40,62
62	46,79	40,68	46,61	40,82	46,44	41,08	46,26	41,29
63	47,55	41,33	47,37	41,48	47,19	41,75	47,00	41,95
64	48,31	41,99	48,12	42,14	47,93	42,41	47,75	42,62
65	49,06	42,64	48,88	42,80	48,68	43,07	48,49	43,28
66	49,81	43,30	49,62	43,46	49,44	43,74	49,24	43,95
67	50,57	43,96	50,37	44,14	50,18	44,40	49,99	44,62
68	51,32	44,61	51,13	44,77	50,93	45,06	50,73	45,28
69	52,08	44,27	51,88	45,46	51,68	45,72	51,48	45,96
70	52,83	45,93	52,63	46,13	52,43	46,38	52,22	46,61
71	53,59	46,58	53,38	46,81	53,18	47,01	52,97	47,28
72	54,34	47,24	54,13	47,46	53,93	47,71	53,72	47,94
73	55,10	47,89	54,89	48,13	54,67	48,37	54,46	48,61
74	55,85	48,55	55,64	48,80	55,42	49,04	55,21	49,28
75	56,61	49,20	56,39	49,45	56,17	49,70	55,95	49,94
76	57,36	49,86	57,14	50,11	56,92	50,36	56,70	50,61
77	58,12	50,52	57,89	50,77	57,67	51,02	57,45	51,27
78	58,87	51,17	58,64	51,43	58,42	51,69	58,19	51,94
79	59,63	51,83	59,40	52,09	59,17	52,35	58,94	52,61
80	60,38	52,49	60,15	52,75	59,91	53,01	59,69	53,27
81	61,13	53,14	60,90	53,41	60,67	53,67	60,43	53,94
82	61,89	53,80	61,65	54,07	61,42	54,34	61,18	54,60
83	62,64	54,45	62,40	54,73	62,16	55,00	61,92	55,27
84	63,40	55,11	63,16	55,38	62,91	55,66	62,67	55,93
85	64,15	55,77	63,91	56,04	63,66	56,33	63,42	56,60
86	64,91	56,42	64,66	56,70	64,41	56,99	64,16	57,27
87	65,66	57,08	65,41	57,36	65,16	57,65	64,91	57,93
88	66,42	57,73	66,16	58,02	65,91	58,31	65,65	58,60
89	67,17	58,39	66,92	58,68	66,66	58,98	66,40	59,26
90	67,92	59,05	67,67	59,34	67,41	59,64	67,15	59,93
91	68,68	59,70	68,42	60,00	68,16	60,28	67,89	60,60
92	69,43	60,36	69,17	60,66	68,90	60,96	68,63	61,26
93	70,19	61,01	69,92	61,32	69,65	61,63	69,38	61,93
94	70,94	61,67	70,67	61,98	70,40	62,29	70,13	62,59
95	71,70	62,33	71,43	62,64	71,15	62,95	70,88	63,26
96	72,45	62,98	72,18	63,30	71,90	63,61	71,62	63,93
97	73,20	63,64	72,93	63,96	72,65	64,28	72,37	64,59
98	73,96	64,29	73,68	64,61	73,40	64,94	73,11	65,25
99	74,72	64,95	74,43	65,27	74,15	65,60	73,85	65,92
100	75,47	65,61	75,18	65,94	74,90	66,26	74,61	66,59
Distance	Dep.		Dep.		Dep.		Dep.	
	Lat.		Lat.		Lat.		Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	49 Deg.		48 Degrees					

Distance	42 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,74	0,67	0,74	0,67	0,74	0,68	0,73	0,68
2	1,49	1,34	1,48	1,34	1,47	1,35	1,47	1,36
3	2,23	2,01	2,22	2,02	2,21	2,03	2,20	2,04
4	2,97	2,68	2,96	2,69	2,95	2,70	2,94	2,71
5	3,72	3,35	3,70	3,36	3,69	3,38	3,67	3,39
6	4,46	4,01	4,44	4,03	4,42	4,05	4,41	4,07
7	5,20	4,68	5,18	4,71	5,16	4,73	5,14	4,75
8	5,94	5,35	5,92	5,38	5,90	5,40	5,87	5,43
9	6,69	6,02	6,66	6,05	6,64	6,08	6,61	6,11
10	7,43	6,69	7,40	6,72	7,37	6,76	7,34	6,79
11	8,17	7,36	8,14	7,40	8,11	7,43	8,08	7,47
12	8,92	8,03	8,88	8,07	8,85	8,11	8,81	8,15
13	9,66	8,70	9,62	8,74	9,58	8,78	9,55	8,82
14	10,40	9,37	10,36	9,41	10,32	9,46	10,28	9,50
15	11,15	10,04	11,10	10,08	11,06	10,13	11,01	10,18
16	11,89	10,71	11,84	10,76	11,79	10,81	11,75	10,86
17	12,63	11,37	12,58	11,43	12,53	11,49	12,48	11,54
18	13,38	12,04	13,32	12,10	13,27	12,16	13,22	12,22
19	14,12	12,71	14,06	12,77	14,01	12,8	13,96	12,90
20	14,86	13,38	14,80	13,45	14,75	13,51	14,69	13,58
21	15,61	14,05	15,54	14,12	15,48	14,19	15,42	14,25
22	16,35	14,72	16,28	14,79	16,22	14,86	16,15	14,93
23	17,09	15,39	17,02	15,46	16,96	15,54	16,89	15,61
24	17,83	16,06	16,76	16,13	17,69	16,22	17,62	16,29
25	18,58	16,73	18,50	16,80	18,43	16,89	18,36	16,97
26	19,32	17,40	19,24	17,47	19,17	17,57	19,09	17,65
27	20,06	18,07	19,98	18,15	19,91	18,24	19,82	18,33
28	20,81	18,73	20,72	18,82	20,64	18,92	20,56	19,01
29	21,55	19,40	21,46	19,49	21,38	19,60	21,29	19,69
30	22,29	20,07	22,21	20,17	22,12	20,27	22,03	20,36
31	23,04	20,74	22,95	20,84	22,85	20,94	22,76	21,04
32	23,78	21,41	23,69	21,51	23,59	21,62	23,50	21,72
33	24,52	22,08	24,43	22,19	24,33	22,30	24,23	22,40
34	25,27	22,75	25,17	22,86	25,07	22,96	24,97	23,08
35	26,01	23,42	25,91	23,53	25,80	23,64	25,70	23,76
36	26,75	24,09	26,65	24,20	26,54	24,31	26,43	24,44
37	27,49	24,76	27,39	24,87	27,28	24,99	27,17	25,11
38	28,24	25,43	28,13	25,55	28,01	25,67	27,90	25,80
39	28,98	26,09	28,87	26,22	28,75	26,34	28,64	26,48
40	29,73	26,76	29,61	26,89	29,49	27,02	29,37	27,15
41	30,47	27,43	30,35	27,57	30,23	27,70	30,11	27,83
42	31,21	28,10	31,09	28,24	30,96	28,38	30,84	28,51
43	31,95	28,77	31,83	28,91	31,69	29,05	31,57	29,19
44	32,70	29,44	32,57	29,58	32,43	29,73	32,31	29,87
45	33,44	30,10	33,31	30,25	33,17	30,40	33,04	30,55
46	34,18	30,77	34,05	30,93	33,90	31,08	33,78	31,23
47	34,93	31,44	34,79	31,60	34,64	31,76	34,51	31,90
48	35,67	32,11	35,53	32,27	35,38	32,43	35,24	32,58
49	36,41	32,78	36,27	32,94	36,11	33,11	35,98	33,26
50	37,16	33,46	37,01	33,62	36,86	33,78	36,72	33,94
Distance	48 Deg.				47 Degrees			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	

TRAVERSE TABLE.

82

Distance	42 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	37,90	34,13	37,75	34,29	37,60	34,46	37,45	34,02
52	38,64	34,79	38,49	34,96	38,34	35,13	38,18	35,30
53	39,39	35,46	39,23	35,63	39,07	35,81	38,92	35,98
54	40,13	36,13	39,97	36,31	39,81	36,48	39,65	36,65
55	40,87	36,80	40,71	36,98	40,55	37,17	40,39	37,33
56	41,61	37,47	41,45	37,65	41,29	37,84	41,12	38,01
57	42,36	38,14	42,19	38,32	42,02	38,51	41,85	38,69
58	43,10	38,81	42,93	38,99	42,76	39,19	42,59	39,37
59	43,84	39,48	43,67	39,67	43,50	39,86	43,32	40,05
60	44,59	40,15	44,41	40,34	44,24	40,53	44,06	40,73
61	45,33	40,82	45,15	41,01	44,97	41,21	44,79	41,41
62	46,07	41,49	45,89	41,69	45,71	41,89	45,53	42,09
63	46,82	42,15	46,63	42,36	46,45	42,56	46,26	42,76
64	47,56	42,82	47,37	43,03	47,18	43,23	46,99	43,44
65	48,30	43,49	48,11	43,70	47,92	43,91	47,73	44,12
66	49,05	44,16	48,85	44,37	48,66	44,58	48,46	44,80
67	49,79	44,83	49,59	45,05	49,40	45,26	49,20	45,48
68	50,53	45,50	50,33	45,72	50,13	45,93	49,93	46,16
69	51,27	46,17	51,07	46,40	50,87	46,61	50,66	46,84
70	52,02	46,84	51,81	47,07	51,61	47,19	51,40	47,52
71	52,76	47,51	52,55	47,74	52,35	47,97	52,14	48,19
72	53,51	48,18	53,29	48,41	53,08	48,64	52,87	48,87
73	54,25	48,85	54,03	49,08	53,82	49,32	53,60	49,55
74	54,99	49,51	54,77	49,75	54,56	49,99	54,34	50,23
75	55,73	50,18	55,51	50,43	55,29	50,67	55,07	50,91
76	56,48	50,85	56,25	51,10	56,03	51,35	55,81	51,59
77	57,22	51,52	56,99	51,77	56,77	52,02	56,54	52,27
78	57,96	52,19	57,73	52,44	57,51	52,70	57,27	52,95
79	58,71	52,86	58,47	53,11	58,24	53,37	58,01	53,63
80	59,45	53,53	59,22	53,79	58,98	54,05	58,75	54,30
81	60,19	54,20	59,96	54,46	59,72	54,72	59,48	54,98
82	60,94	54,87	60,70	55,13	60,46	55,40	60,21	55,66
83	61,68	55,54	61,44	55,81	61,19	56,07	60,95	56,34
84	62,42	56,21	62,18	56,48	61,93	56,75	61,68	57,02
85	63,17	56,87	62,92	57,15	62,67	57,43	62,42	57,70
86	63,91	57,54	63,66	57,82	63,40	58,10	63,15	58,38
87	64,65	58,21	64,40	58,49	64,14	58,78	63,88	59,06
88	65,39	58,88	65,14	59,17	64,88	59,46	64,62	59,74
89	66,14	59,55	65,88	59,84	65,61	60,13	65,35	60,41
90	66,88	60,22	66,62	60,51	66,35	60,80	66,09	61,09
91	67,63	60,89	67,36	61,18	67,09	61,48	66,82	61,77
92	68,37	61,56	68,10	61,86	67,83	62,15	67,56	62,45
93	69,11	62,23	68,84	62,53	68,57	62,83	68,29	63,13
94	69,85	62,90	69,58	63,20	69,30	63,51	69,02	63,81
95	70,60	63,57	70,32	63,87	70,04	64,18	69,76	64,49
96	71,34	64,24	71,06	64,54	70,78	64,86	70,49	65,17
97	72,08	64,90	71,80	65,22	71,51	65,53	71,23	65,84
98	72,83	65,57	72,54	65,89	72,25	66,21	71,96	66,52
99	73,57	66,24	73,28	66,56	72,99	66,89	72,69	67,20
100	74,31	66,91	74,02	67,24	73,73	67,56	73,43	67,88
Distance	48 Deg.				47 Degrees			
	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	

TRAVERSE TABLE.

Distance	43 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0	0,68	0,73	0,68	0,72	0,69	0,72	0,69
2	1,46	1,36	1,46	1,38	1,45	1,38	1,44	1,38
3	2,19	2,05	2,18	2,06	2,18	2,06	2,17	2,07
4	2,92	2,73	2,93	2,74	2,90	2,75	2,89	2,77
5	3,66	3,41	3,64	3,43	3,63	3,44	3,61	3,46
6	4,39	4,09	4,37	4,14	4,35	4,13	4,33	4,15
7	5,12	4,77	5,10	4,80	5,08	4,82	5,06	4,84
8	5,85	5,46	5,83	5,48	5,80	5,51	5,78	5,53
9	6,58	6,14	6,55	6,17	6,53	6,19	6,50	6,22
10	7,31	6,82	7,28	6,85	7,25	6,88	7,22	6,91
11	8,04	7,50	8,01	7,54	7,98	7,57	7,95	7,61
12	8,78	8,18	8,74	8,22	8,70	8,26	8,67	8,30
13	9,51	8,87	9,47	8,91	9,43	8,95	9,39	8,99
14	10,24	9,55	10,20	9,59	10,15	9,64	10,11	9,68
15	10,97	10,23	10,92	10,28	10,88	10,32	10,83	10,37
16	11,70	10,91	11,65	10,96	11,60	11,01	11,56	11,07
17	12,43	11,59	12,38	11,65	12,33	11,70	12,28	11,76
18	13,16	12,28	13,11	12,33	13,05	12,39	13,00	12,45
19	13,89	12,96	13,84	13,02	13,78	13,08	13,74	13,14
20	14,63	13,64	14,57	13,70	14,51	13,77	14,45	13,83
21	15,36	14,32	15,29	14,39	15,23	14,45	15,17	14,52
22	16,09	15,00	16,02	15,07	15,96	15,14	15,89	15,21
23	16,82	15,69	16,75	15,76	16,68	15,83	16,61	15,91
24	17,55	16,37	17,48	16,44	17,41	16,52	17,33	16,60
25	18,28	17,05	18,21	17,13	18,13	17,21	18,06	17,29
26	19,01	17,73	18,94	17,81	18,86	17,89	18,77	17,98
27	19,74	18,41	19,66	18,50	19,58	18,50	19,50	18,67
28	20,47	19,10	20,39	19,18	20,31	19,27	20,22	19,37
29	21,21	19,78	21,12	19,87	21,03	19,96	20,94	20,06
30	21,94	20,46	21,85	20,55	21,76	20,65	21,67	20,74
31	22,67	21,14	22,58	21,24	22,49	21,34	22,39	21,44
32	23,40	21,82	23,30	21,92	23,21	22,03	23,11	22,13
33	24,13	22,51	24,02	22,61	23,94	22,71	23,84	22,82
34	24,86	23,19	24,75	23,29	24,66	23,40	24,56	23,51
35	25,60	23,87	25,48	23,98	25,39	24,09	25,28	24,20
36	26,32	24,55	26,21	24,66	26,11	24,78	26,00	24,90
37	27,06	25,23	26,94	25,35	26,84	25,47	26,73	25,59
38	27,79	25,91	27,66	26,03	27,56	26,16	27,45	26,28
39	28,52	26,60	28,39	26,72	28,29	26,84	28,18	26,97
40	29,25	27,28	29,13	27,41	29,01	27,53	28,89	27,66
41	29,98	27,96	29,86	28,09	29,74	28,22	29,62	28,35
42	30,72	28,64	30,59	28,78	30,46	28,91	30,34	29,04
43	31,45	29,33	31,32	29,46	31,19	29,60	31,06	29,74
44	32,18	30,01	32,05	30,15	31,91	30,29	31,78	30,43
45	32,91	30,69	32,77	30,83	32,64	30,97	32,50	31,12
46	33,64	31,37	33,50	31,52	33,36	31,66	33,23	31,82
47	34,37	32,05	34,23	32,20	34,09	32,35	33,95	32,51
48	35,10	32,74	34,96	32,89	34,82	33,04	34,67	33,20
49	35,83	33,42	35,69	33,57	35,54	33,73	35,39	33,90
50	36,57	34,10	36,42	34,26	36,27	34,42	36,12	34,58
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	47 Deg.		46 Degrees					

TRAVERSE TABLE.

88

Distance	43 Degrees							
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
51	37,39	34,78	37,15	34,94	36,99	35,11	36,84	35,27
52	38,03	35,46	37,87	35,63	37,72	35,79	37,56	35,96
53	38,76	36,15	38,60	36,33	38,44	36,46	38,28	36,65
54	39,49	36,83	39,33	37,00	39,17	37,17	39,01	37,34
55	40,22	37,51	40,06	37,68	39,89	37,80	39,73	38,04
56	40,95	38,19	40,79	38,37	40,62	38,55	40,45	38,73
57	41,68	38,87	41,51	39,05	41,34	39,23	41,16	39,43
58	42,42	39,56	42,24	39,74	42,07	39,91	41,89	40,11
59	43,15	40,24	42,97	40,42	42,78	40,61	42,62	40,80
60	43,88	40,92	43,70	41,11	43,52	41,30	43,34	41,49
61	44,61	41,60	44,43	41,80	44,25	41,99	44,06	42,18
62	45,34	42,28	45,16	42,48	44,97	42,68	44,79	42,87
63	46,07	42,97	45,89	43,17	45,70	43,36	45,51	43,57
64	46,80	43,65	46,61	43,85	46,42	44,05	46,23	44,26
65	47,54	44,33	47,34	44,54	47,15	44,74	46,95	44,95
66	48,27	45,01	48,07	45,22	47,87	45,43	47,67	45,64
67	49,00	45,69	48,80	45,91	48,60	46,12	48,40	46,33
68	49,73	46,38	49,53	46,59	49,32	46,80	49,12	47,03
69	50,46	47,06	50,25	47,28	50,05	47,49	49,84	47,72
70	51,19	47,74	50,99	47,96	50,78	48,18	50,56	48,41
71	51,93	48,42	51,71	48,65	51,50	48,87	51,29	49,10
72	52,66	49,10	52,44	49,33	52,23	49,56	52,01	49,79
73	53,39	49,79	53,17	50,02	52,95	50,25	52,73	50,48
74	54,12	50,47	53,90	50,70	53,68	50,94	53,45	51,17
75	54,85	51,15	54,63	51,39	54,40	51,62	54,17	51,87
76	55,58	51,83	55,35	52,07	55,13	52,31	54,90	52,56
77	56,31	52,51	56,08	52,76	55,85	53,00	55,62	53,25
78	57,04	53,20	56,81	53,44	56,58	53,69	56,34	53,94
79	57,77	53,88	57,54	54,13	57,30	54,38	57,06	54,63
80	58,51	54,56	58,27	54,81	58,03	55,07	57,79	55,32
81	59,24	55,24	59,00	55,50	58,75	55,76	58,51	56,01
82	59,97	55,92	59,73	56,18	59,48	56,44	59,23	56,70
83	60,70	56,61	60,45	56,87	60,20	57,13	59,95	57,40
84	61,43	57,29	61,18	57,55	60,92	57,82	60,68	58,08
85	62,16	57,97	61,91	58,23	61,65	58,51	61,40	58,78
86	62,89	58,65	62,64	58,92	62,38	59,20	62,12	59,47
87	63,62	59,33	63,37	59,61	63,10	59,88	62,84	60,16
88	64,36	60,02	64,09	60,29	63,83	60,57	63,56	60,86
89	65,09	60,70	64,82	60,98	64,55	61,26	64,29	61,55
90	65,82	61,38	65,55	61,67	65,28	61,95	65,01	62,24
91	66,55	62,06	66,28	62,35	66,01	62,64	65,73	62,93
92	67,28	62,74	67,01	63,04	66,73	63,33	66,46	63,62
93	68,01	63,43	67,74	63,72	67,46	64,02	67,18	64,31
94	68,75	64,11	68,46	64,41	68,18	64,70	67,90	65,00
95	69,48	64,79	69,19	65,09	68,91	65,39	68,62	65,70
96	70,21	65,47	69,92	65,78	69,63	66,08	69,34	66,39
97	70,94	66,15	70,65	66,46	70,36	66,77	70,07	67,08
98	71,67	66,84	71,38	67,15	71,08	67,46	70,79	67,77
99	72,40	67,52	72,10	67,83	71,81	68,14	71,51	68,46
100	73,13	68,20	72,84	68,52	72,54	68,83	72,24	69,15
Distance	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{3}{4}$		$\frac{1}{2}$		$\frac{1}{4}$	
	47 Deg.		46 Degrees					

TRAVERSE TABLE.

Distance.	44 Degrees									
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		45 Deg.	
	Lat.	Dep.	L	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
1	0,72	0,69	0,72	0,70	0,71	0,70	0,71	0,71	0,71	0,71
2	1,44	1,39	1,43	1,40	1,43	1,40	1,42	1,41	1,41	1,41
3	2,16	2,08	2,15	2,09	2,14	2,10	2,13	2,11	2,12	2,12
4	2,88	2,78	2,86	2,79	2,85	2,80	2,84	2,82	2,83	2,83
5	3,60	3,47	3,58	3,49	3,57	3,50	3,55	3,52	3,54	3,54
6	4,32	4,17	4,30	4,19	4,28	4,21	4,26	4,22	4,24	4,24
7	5,03	4,86	5,01	4,88	4,99	4,91	4,97	4,93	4,95	4,95
8	5,75	5,56	5,73	5,58	5,71	5,61	5,68	5,63	5,66	5,66
9	6,47	6,25	6,45	6,28	6,42	6,31	6,39	6,34	6,36	6,36
10	7,19	6,95	7,16	6,98	7,13	7,01	7,10	7,04	7,07	7,07
11	7,91	7,64	7,88	7,68	7,85	7,71	7,81	7,74	7,78	7,78
12	8,63	8,34	8,60	8,37	8,56	8,41	8,52	8,45	8,49	8,49
13	9,35	9,03	9,31	9,07	9,27	9,11	9,23	9,15	9,19	9,19
14	10,07	9,73	10,03	9,77	9,99	9,81	9,94	9,86	9,90	9,90
15	10,79	10,42	10,74	10,47	10,70	10,51	10,65	10,56	10,61	10,61
16	11,51	11,12	11,46	11,16	11,41	11,21	11,36	11,26	11,31	11,31
17	12,23	11,81	12,18	11,86	12,13	11,92	12,07	11,97	12,02	12,02
18	12,94	12,51	12,89	12,56	12,84	12,62	12,78	12,67	12,73	12,73
19	13,65	13,20	13,61	13,26	13,55	13,32	13,49	13,38	13,44	13,44
20	14,39	13,89	14,33	13,96	14,26	14,02	14,20	14,08	14,14	14,14
21	15,11	14,59	15,04	14,65	14,98	14,72	14,91	14,78	14,85	14,85
22	15,82	15,28	15,76	15,35	15,69	15,42	15,62	15,49	15,56	15,56
23	16,54	15,98	16,47	16,05	16,40	16,12	16,33	16,19	16,26	16,26
24	17,26	16,67	17,19	16,75	17,12	16,82	17,04	16,90	16,97	16,97
25	17,98	17,37	17,91	17,44	17,83	17,52	17,75	17,60	17,68	17,68
26	18,70	18,06	18,62	18,14	18,54	18,22	18,46	18,30	18,38	18,38
27	19,42	18,76	19,34	18,84	19,26	18,92	19,17	19,01	19,09	19,09
28	20,14	19,45	20,06	19,54	19,97	19,63	19,89	19,71	19,80	19,80
29	20,86	20,15	20,77	20,24	20,68	20,33	20,60	20,42	20,51	20,51
30	21,58	20,84	21,49	20,93	21,40	21,03	21,31	21,12	21,21	21,21
31	22,30	21,53	22,21	21,63	22,11	21,73	22,02	21,82	21,92	21,92
32	23,02	22,23	22,92	22,33	22,82	22,43	22,73	22,53	22,63	22,63
33	23,74	22,92	23,64	23,03	23,54	23,13	23,44	23,23	23,33	23,33
34	24,46	23,62	24,35	23,72	24,25	23,83	24,15	23,94	24,04	24,04
35	25,17	24,31	25,07	24,42	24,97	24,53	24,86	24,64	24,75	24,75
36	25,89	25,01	25,79	25,12	25,68	25,23	25,57	25,34	25,46	25,46
37	26,61	25,71	26,50	25,82	26,39	25,93	26,28	26,05	26,16	26,16
38	27,33	26,41	27,22	26,52	27,10	26,63	26,99	26,75	26,87	26,87
39	28,05	27,10	27,94	27,21	27,82	27,34	27,70	27,46	27,58	27,58
40	28,77	27,79	28,65	27,91	28,53	28,04	28,41	28,16	28,28	28,28
41	29,49	28,48	29,37	28,61	29,24	28,74	29,12	28,86	28,99	28,99
42	30,21	29,18	30,08	29,31	29,96	29,44	29,83	29,57	29,70	29,70
43	30,93	29,87	30,80	30,01	30,67	30,14	30,54	30,27	30,41	30,41
44	31,65	30,57	31,51	30,70	31,38	30,84	31,25	30,98	31,11	31,11
45	32,37	31,26	32,23	31,40	32,10	31,54	31,96	31,68	31,82	31,82
46	33,09	31,96	32,95	32,10	32,81	32,24	32,67	32,38	32,53	32,53
47	33,81	32,65	33,67	32,80	33,52	32,94	33,38	33,09	33,23	33,23
48	34,53	33,35	34,38	33,49	34,24	33,64	34,09	33,79	33,94	33,94
49	35,24	34,04	35,10	34,19	34,95	34,34	34,80	34,50	34,65	34,65
50	35,97	34,73	35,82	34,89	35,66	35,05	35,51	35,20	35,35	35,35
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		45	
	46 Deg.				45 Degrees					

TRAVERSE TABLE.

90

Distance.	44 Degrees									
	0 Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		45 Deg.	
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		45	
51	36,69	35,43	36,53	35,59	36,38	35,75	36,22	35,90	36,06	36,06
52	37,40	36,12	37,25	36,29	37,09	36,45	36,93	36,61	36,77	36,77
53	38,12	36,82	37,96	36,98	37,80	37,15	37,64	37,31	37,47	37,47
54	38,84	37,51	38,68	37,68	38,52	37,85	38,35	38,02	38,18	38,18
55	39,56	38,21	39,40	38,38	39,23	38,55	39,06	38,72	38,89	38,89
56	40,28	38,90	40,11	39,08	39,94	39,25	39,77	39,42	39,60	39,60
57	41,01	39,60	40,83	39,77	40,66	39,95	40,48	40,13	40,30	40,30
58	41,72	40,29	41,55	40,77	41,37	40,65	41,19	40,83	41,01	41,01
59	42,44	40,99	42,26	41,17	42,08	41,35	41,90	41,54	41,72	41,72
60	43,16	41,88	42,98	41,87	42,79	42,05	42,61	42,24	42,43	42,43
61	43,88	42,37	43,69	42,57	43,51	42,76	43,32	42,94	43,13	43,13
62	44,60	43,09	44,41	43,26	44,22	43,46	44,03	43,65	43,84	43,84
63	45,32	43,76	45,13	43,96	44,93	44,16	44,74	44,35	44,55	44,55
64	46,04	44,46	45,84	44,66	45,65	44,86	45,45	45,06	45,25	45,25
65	46,75	45,15	45,55	45,36	46,36	45,56	46,16	45,76	45,96	45,96
66	47,47	45,85	47,28	46,05	47,07	46,26	46,87	46,46	46,67	46,67
67	48,19	46,54	47,99	46,75	47,79	46,96	47,58	47,17	47,38	47,38
68	48,91	47,24	48,71	47,45	48,50	47,66	48,29	47,87	48,08	48,08
69	49,63	48,93	49,43	48,15	49,21	48,36	49,00	48,58	48,79	48,79
70	50,35	48,63	50,14	48,85	49,93	49,06	49,71	49,28	49,50	49,50
71	51,07	49,34	50,86	49,54	50,64	49,76	50,42	49,98	50,20	50,20
72	51,79	50,02	51,57	50,24	51,35	50,47	51,13	50,69	50,91	50,91
73	52,51	50,71	52,29	50,94	52,07	51,17	51,84	51,39	51,62	51,62
74	53,23	51,41	53,01	51,64	52,78	51,87	52,55	52,10	52,33	52,33
75	53,95	52,10	53,72	52,33	53,49	52,57	53,26	52,80	53,03	53,03
76	54,67	52,80	54,44	53,03	54,21	53,27	53,97	53,51	53,74	53,74
77	55,39	53,49	55,16	53,73	54,92	53,97	54,68	54,21	54,45	54,45
78	56,11	54,19	55,87	54,43	55,63	54,67	55,39	54,91	55,15	55,15
79	56,82	54,88	56,59	55,13	56,35	55,37	56,10	55,62	55,86	55,86
80	57,55	55,57	57,30	55,82	57,06	56,07	56,81	56,32	56,57	56,57
81	58,27	56,27	58,02	56,52	57,77	56,77	57,52	57,03	57,28	57,28
82	58,98	56,96	58,74	57,22	58,49	57,47	58,24	57,73	57,98	57,98
83	59,70	57,66	59,45	57,92	59,20	58,18	58,95	58,43	58,69	58,69
84	60,42	58,35	60,17	58,61	59,91	58,88	59,66	59,14	59,40	59,40
85	61,14	59,05	60,89	59,31	60,63	59,58	60,37	59,84	60,10	60,10
86	61,86	59,74	61,60	60,01	61,34	60,28	61,08	60,55	60,81	60,81
87	62,58	60,44	62,32	60,71	62,05	60,98	61,79	61,25	61,52	61,52
88	63,30	61,13	63,04	61,41	62,77	61,68	62,50	61,95	62,22	62,22
89	64,02	61,83	63,75	62,10	63,48	62,38	63,21	62,66	62,93	62,93
90	64,74	62,52	64,47	62,80	64,19	63,08	63,92	63,36	63,64	63,64
91	65,46	63,21	65,18	63,50	64,91	63,78	64,63	64,07	64,35	64,35
92	66,18	63,91	65,90	64,20	65,62	64,48	65,34	64,77	65,05	65,05
93	66,90	64,60	66,62	64,89	66,33	65,18	66,05	65,47	65,76	65,76
94	67,62	65,30	67,33	65,59	67,05	65,89	66,76	66,18	66,47	66,47
95	68,34	66,00	68,05	66,29	67,76	66,59	67,47	66,88	67,17	67,17
96	69,05	66,69	68,77	66,99	68,47	67,29	68,18	67,59	67,88	67,88
97	69,77	67,38	69,48	67,69	69,19	67,99	68,89	68,29	68,59	68,59
98	70,49	68,08	70,20	68,38	69,90	68,69	69,60	68,99	69,30	69,30
99	71,21	68,77	70,91	69,08	70,61	69,39	70,31	69,70	70,00	70,00
100	71,93	69,47	71,63	69,78	71,32	70,09	71,02	70,40	70,71	70,71
Distance.	Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.		Dep. Lat.	
	o Min.		$\frac{1}{4}$		$\frac{1}{2}$		$\frac{3}{4}$		45	
	46 Deg.				45 Degrees					

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